

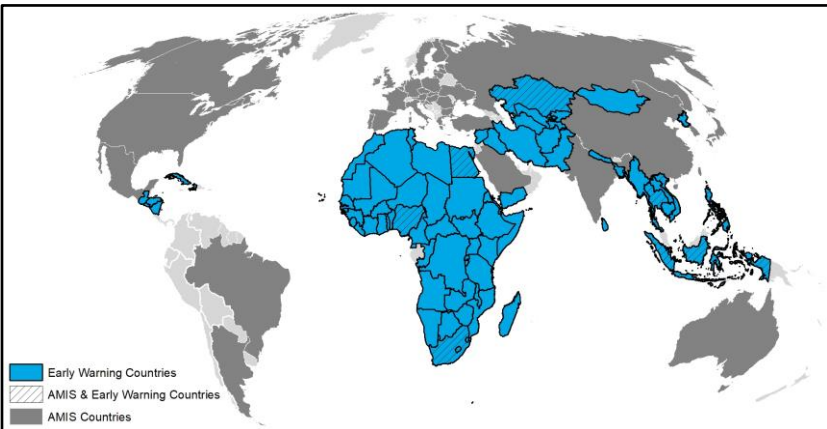


Crop Monitor

EARLY WARNING

Overview:

In **East Africa**, harvesting of main season cereals is underway in the north under mixed conditions. In the south, there is ongoing concern for second season cereals due to a third consecutive season of below-average rainfall for OND 2021 and the increasing likelihood for a fourth consecutive poor rainfall season forecast for MAM 2022 (See Seasonal Forecast Alert Pg. 5 and Regional Outlook Pg. 9). In **West Africa**, harvesting of main season cereals is nearing completion under mixed conditions due to dryness in parts of Burkina Faso, Chad, Mali, Mauritania, and Niger as well as persisting conflict in affected regions. In the **Middle East and North Africa**, planting of winter wheat crops continued, and current dry conditions may impact crop development if rainfall amounts to not improve in December. In **Southern Africa**, harvesting of winter wheat crops finalized in November while planting of main season cereals is underway, and overall conditions are favourable except in localized areas with delayed rainfall onset. In **Central and South Asia**, planting and development of winter wheat is underway with concern in parts of Afghanistan, Kazakhstan, Kyrgyzstan, Turkmenistan, and Uzbekistan impacted by prevailing dryness. In **Southeast Asia**, harvesting of wet-season rice is nearing completion in the north under mixed conditions due to typhoon flood damage in parts of Myanmar, Thailand, and the Philippines. In Indonesia, overall conditions are favourable. In **Central America and the Caribbean**, *Segunda/Postre* season cereals are unlikely to recover in parts of Guatemala, Honduras, and Haiti due to erratic and below-average rains.



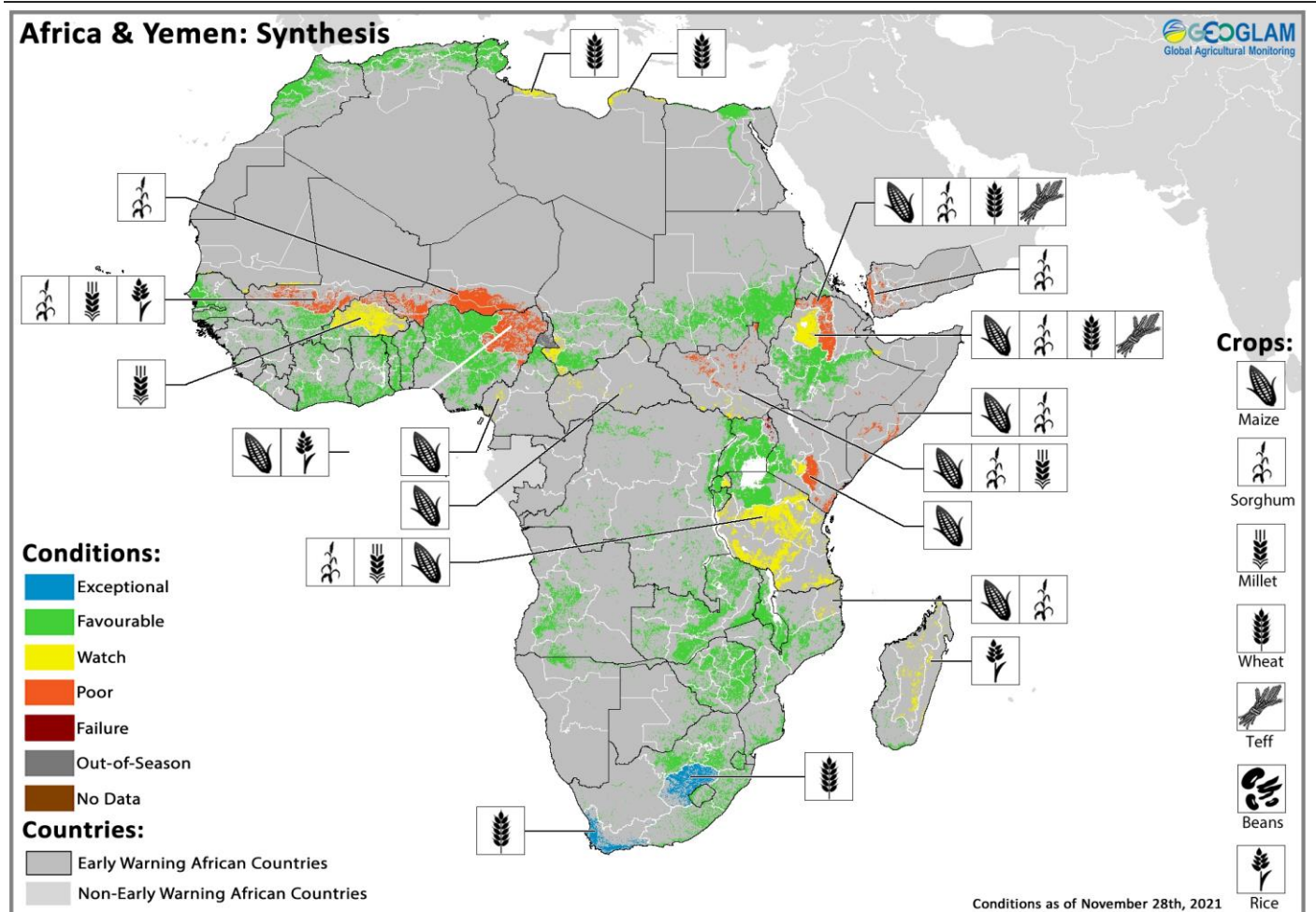
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GEOGLAM Crop Monitor for Early Warning

Crop Conditions at a Glance

based on best available information as of November 28th



Crop condition map synthesizing information for all Crop Monitor for Early Warning crops as of November 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Regions that are in other than favourable conditions are labeled on the map with a symbol representing the crop(s) affected.**

EAST AFRICA: Harvesting of main season cereals is underway in the north under mixed conditions due to flooding in South Sudan and ongoing conflict and socio-economic challenges in South Sudan, Yemen, and northern Ethiopia. In the south of the subregion, there is continued concern for second season cereals due to a third consecutive poor rainfall season for OND 2021, and dry conditions are forecast to continue, leaving little to no chance for recovery (See Seasonal Forecast Alert Pg. 5 and Regional Outlook Pg. 9).

WEST AFRICA: Harvesting of main season cereals is wrapping up throughout the subregion, and conditions are generally favourable in the Gulf of Guinea and mixed in the Sahel due to prevailing dryness in north and central Burkina Faso, southern Chad, Mali, Mauritania, and Niger as well as persisting conflict in affected regions.

MIDDLE EAST & NORTH AFRICA: Planting of winter wheat crops continued throughout the subregion, and below-average rainfall and current soil moisture deficits may impact crop development if rainfall amounts do not improve in late November and December. Additionally, conflict and socio-economic challenges continue to impact agricultural activities in Libya and Syria.

SOUTHERN AFRICA: Harvesting of winter wheat crops finalized under favourable to exceptional conditions. Planting of main season cereals is underway, and conditions are generally favourable despite delayed and erratic rainfall in some regions. Above-average rainfall is forecast for December to January which will be beneficial to crop establishment and development if forecasts materialize (See Regional Outlook Pg. 13).

CENTRAL & SOUTH ASIA: Planting and development of winter wheat continues under mixed conditions as dry conditions are impacting crops in parts of Afghanistan, Kazakhstan, Kyrgyzstan, Turkmenistan, and Uzbekistan.

SOUTHEAST ASIA: In the north, harvesting of wet-season rice is nearing completion under mixed conditions due to typhoon flood damage in large parts of southern Myanmar, Thailand, and the Philippines. Planting of dry-season rice has commenced with sufficient irrigation water supply. In Indonesia, overall conditions are favourable.

CENTRAL AMERICA & CARIBBEAN: In Central America, *Segunda/Postrema* season cereals are unlikely to recover in southern Guatemala and southern Honduras due to erratic and below-average rainfall. In Haiti, second season crop yields are below-average due to prevailing dryness and impacts from the August disasters.

Global Climate Outlook: 30-day Forecast of Areas with Above or Below-Average Precipitation

The 30-day precipitation forecast indicates a likelihood of above-average rainfall over the west coast of the United States, Costa Rica, Panama, western Colombia, central Bolivia, Suriname, French Guiana, north central to eastern Brazil, Albania, western Greece, western Turkey, central South Africa, southern and eastern India, southern Viet Nam, the Philippines, eastern Indonesia, Papua New Guinea, and eastern Australia. There is also a likelihood of below-average rainfall in the southeastern United States, northern Guatemala, southern Brazil, northeastern Argentina, northern Uruguay, southern Chile, Portugal, western Spain, northern Italy, southern DRC, Zambia, Tanzania, parts of Mozambique, Madagascar, southwestern Iran, southeast China, and western Indonesia.

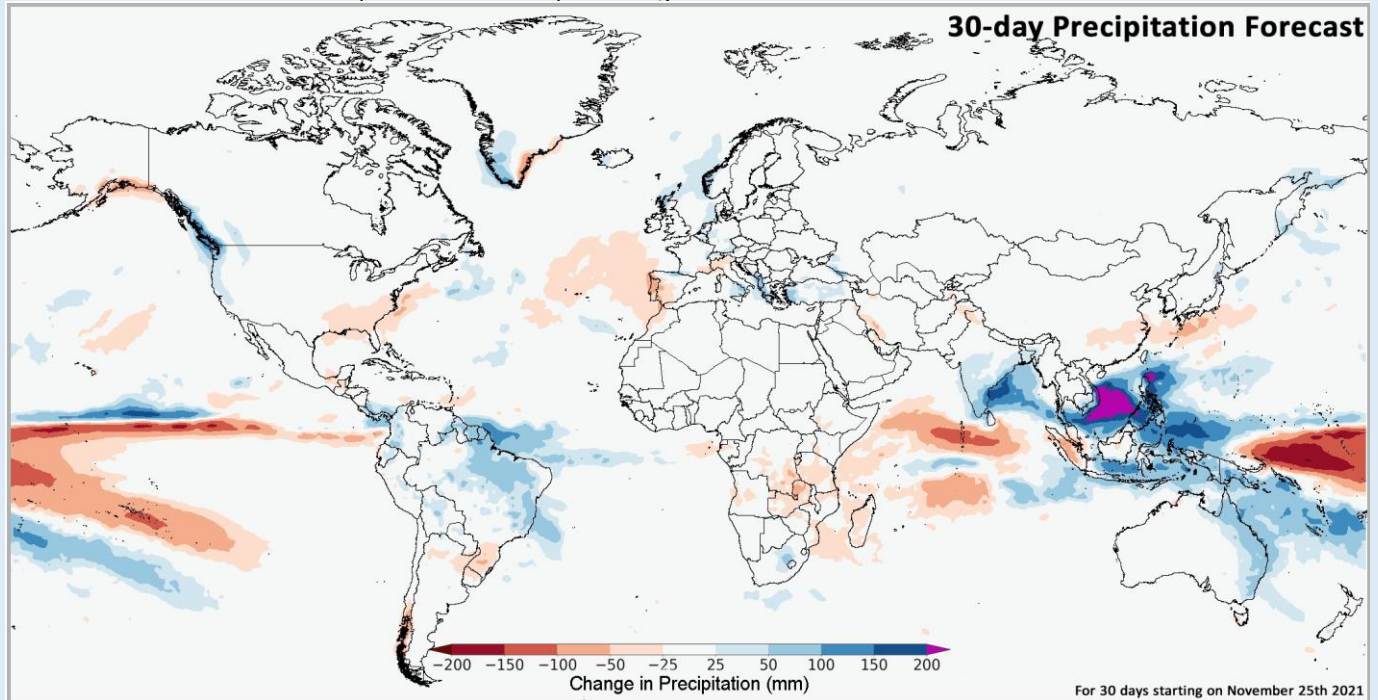


Figure 1. Forecast of areas with above or below-average precipitation over the next 30-days starting on November 25th, 2021. The image is the multimodel mean of precipitations anomaly from the Subseasonal Experiment (SubX) model forecasts for that day. The anomaly is based on the 1999 to 2016 model average. Skill assessments of SubX can be accessed [here](#). Source: UCSB Climate Hazards Center

Climate Influences: La Niña event present and expected to continue through February, and negative IOD has weakened to neutral state

The El Niño-Southern Oscillation (ENSO) is currently in the La Niña phase with NOAA CPC/IRI issuing a La Niña Advisory in October. La Niña conditions are expected to continue during December to February (92% chance) and into April (69% chance for February-March-April; 50% chance for March-April-May). Climate forecasts also anticipate exceptionally warm west Pacific Ocean conditions, which can amplify the impact of cool eastern Pacific La Niña conditions.

La Niña conditions typically increase the chances of below-average precipitation in East Africa, Central and South Asia, southern South America, the southern United States, northern Mexico, and eastern East Asia. There are elevated risks of a two-year sequence of dry conditions in these regions, associated with La Niña conditions last year and this year. La Niña conditions typically increase the chances of above-average precipitation in parts of Southeast Asia, Australia, Southern Africa, and northern South America.

The negative Indian Ocean Dipole (IOD) recently weakened to a neutral state.

Source: UCSB Climate Hazards Center

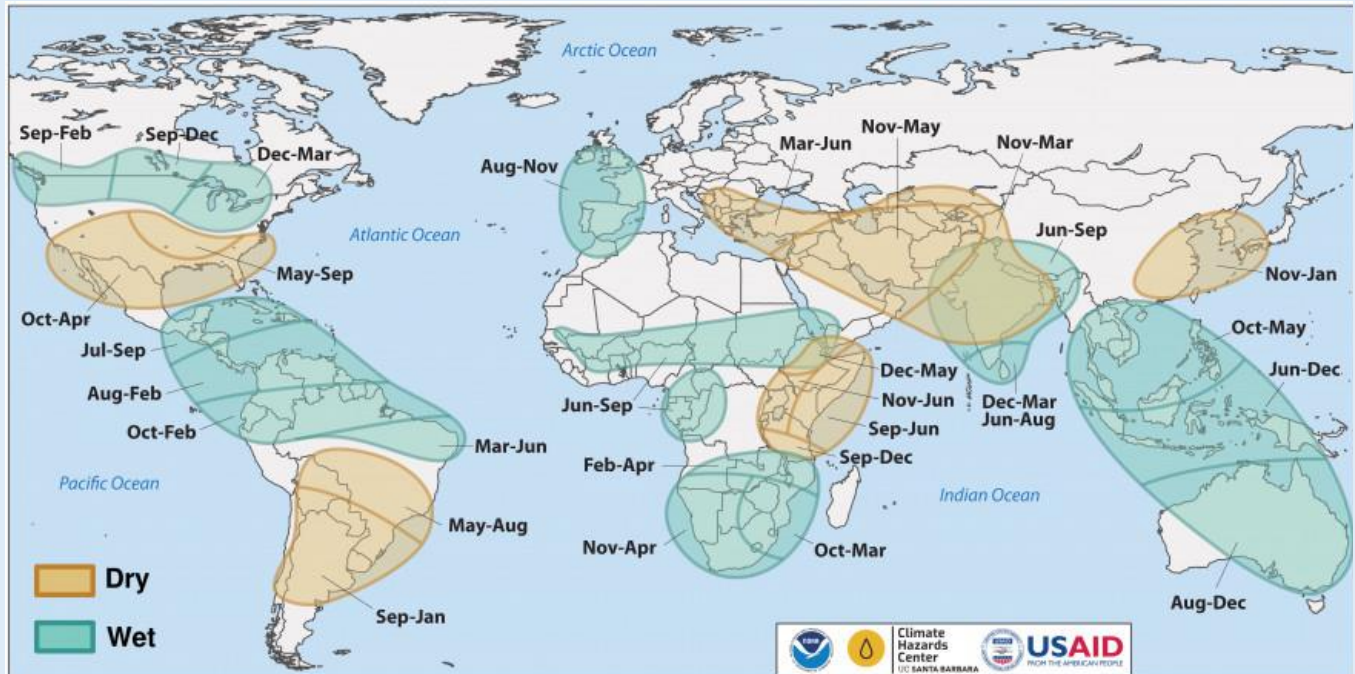


Figure 1. Timing of wet and dry conditions related to La Niña <https://fews.net/la-ni%C3%B1a-and-precipitation>. Source: NOAA & CHC & FEWS NET

Desert Locust Update: Moderate threat to crops in areas of the North, though the threat is expected to reduce with cessation of rains in December

In October, heavy rainfall received in some northern parts of the subregion, particularly in eastern **Ethiopia** and northern **Somalia**, is likely to increase vegetation availability as well as the number of adult locusts, bands, and hoppers. In November, above-average rainfall continued through northern parts of the subregion (See Regional Outlook Pg. 9); however, vegetation will start to dry off in December. In accordance with the current La Niña event, the likely continuation of dry conditions across the Horn of Africa is likely to restrict current breeding.

In **Ethiopia**, a few mature swarms were present near the south along the Kenyan border as of early November, and there is a high risk of locusts impacting crop production in Somali region where planting of sorghum and teff crops is underway. There is also a moderate risk for *Meher* season cereals in harvesting stage where locusts are present. However, there has been a strengthening of control operations in the country, particularly in the South-Eastern zone of Tigray region. In **Somalia**, some early instar hopper bands were present as of early November in the northeast, and solitary adults were present in the northwest and may breed. There is a high risk of locusts impacting crop production in parts of the northwest where *Deyr* season maize and sorghum crops are in vegetative to reproductive stage. In **Sudan**, there is a moderate risk of locusts impacting crop production in North Kurdufan, Kassala, and Al Jazirah states where harvesting of main season millet and sorghum crops is underway. In **Kenya**, a few swarms have arrived in the northeast since early November. In **Eritrea**, winter breeding is likely to have started in the Red Sea coastal areas. As of late November, groups of hoppers were present between Faro and Gelalo from swarms originating from northeastern Ethiopia. In **Yemen**, breeding was underway along the southern coast as of early November, and a few small hopper bands formed. A few swarms may reach the Red Sea Coast.

Seasonal Forecast Alert: Third consecutive poor rainfall season resulted for OND 2021, and fourth consecutive poor rainfall season likely for MAM 2022

Very poor rainfall performance during October and November in eastern East Africa has resulted in the third consecutive poor season for the region. Such severe and persistent dry conditions (See Regional Outlook Pg. 9) are a serious threat to pastoral and agricultural communities' livelihoods. Adding to these concerns are the threat of drought conditions possibly persisting during the next rainfall season in March-April-May (MAM) 2022.

Concerns for poor MAM 2022 rainfall performance in eastern areas of the region are founded upon the [in-progress](#) La Niña event, the forecast Pacific Ocean sea surface temperature (SST) configuration for MAM 2022, and observed below-normal MAM rainfall during many similar years. For MAM 2022, NMME models confidently predict much warmer-than-average SSTs across the western Pacific Ocean, and cooler-than-average SSTs in the equatorial eastern Pacific Ocean (Figure 1-left). The SST forecast also indicates that a strong "Western V" tropical-extratropical gradient (WVG) could help produce La Niña-like suppressed rainfall impacts in the eastern Horn during MAM, even if eastern Pacific SSTs are not cool enough to meet La Niña criteria in MAM. There is a ~50% chance of La Niña during MAM and a ~90% chance of strong MAM WVG conditions. Four-month lead NMME forecasts for WVG conditions during MAM are skillful (Figure 1-right) due to the models' ability to forecast La Niña-related SST variations and the strong warming trend in the western Pacific. In years when climate models forecast a strong negative WVG, as they do for MAM 2022 (red circle), many MAM seasons had below-normal rainfall (orange circles show all below-normal seasons).

Climate models do not provide reliable long-range rainfall predictions for the MAM season. Using recent historical analogs as a guide, based on similar La Niña and WVG climate conditions, the chance for below-normal rainfall in MAM 2022 is [higher than 50%](#) in [many areas](#) of the eastern Horn. Back-to-back dry OND and MAM seasons emerged under similar conditions last year (2020-21), and predictions of those dry seasons were accurate. Given the poor OND 2021 season, and the anticipated MAM 2022 Pacific Ocean conditions, it is likely that the eastern East Africa region will experience a rare case of four sequential moderate to extreme dry seasons.

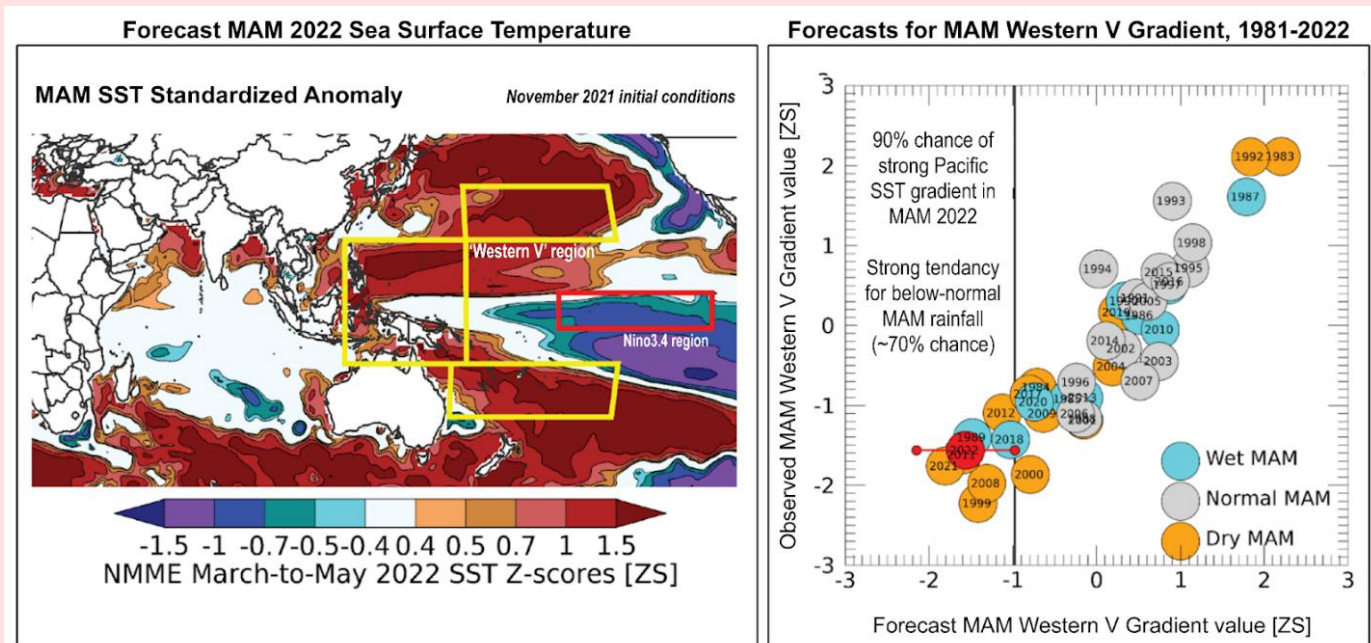
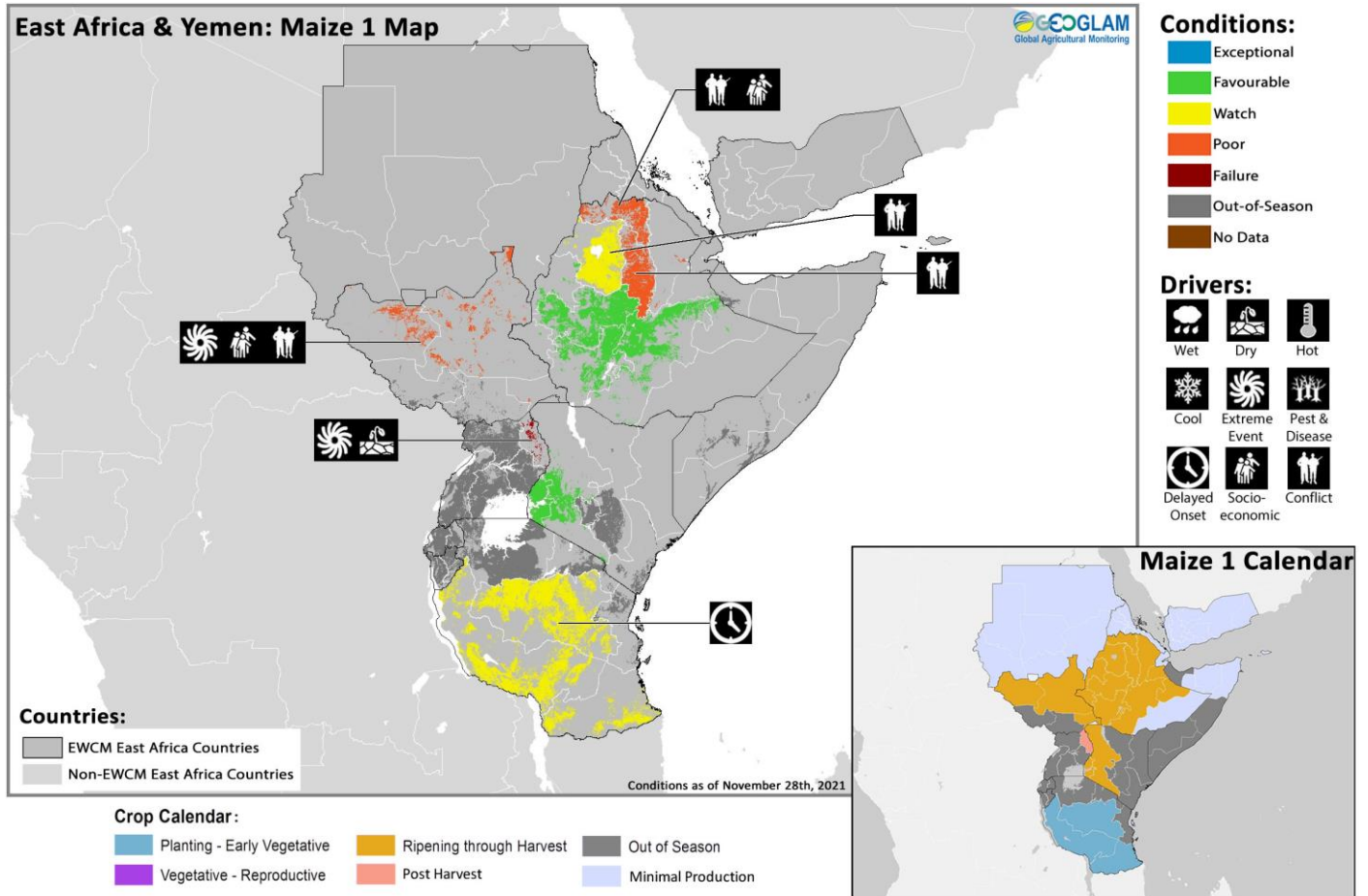


Figure 1. Indications for a likely below-normal MAM 2022 season. Left— Map showing November NMME model mean forecast sea surface temperatures for March-April-May (MAM) 2022, presented as standardized anomalies (Z-scores) to illustrate the historical forecast extremity of warm Western V-region SST (three connected western Pacific yellow boxes) and Niño 3.4 region SST (eastern yellow box). NMME models used are: CanCM4i, COLA-RSMAS-CCSM4, GEM-NEMO, NASA-GEOSS2S, and NCEP-CFSv2. SST is standardized using a 1982-2021 baseline. Right— Scatterplot of predicted and observed MAM Western V Gradient (WVG) values. The "Western V gradient" is the difference between standardized Niño 3.4 and Western V time-series. Forecasts based on October NMME predictions. There is a 90% chance of strong Pacific Ocean sea surface temperature WVG gradient conditions during MAM 2022. The red circle shows the 2022 forecast. All below-normal eastern East African MAM rainy seasons are noted with orange circles. When strong negative WVG values have occurred or been predicted, below-normal MAM rains have been likely. More details are provided in a Climate Hazards Center Blog (<http://blog.chc.ucsb.edu/?p=1030>).

Source: Climate Hazards Center

East Africa & Yemen

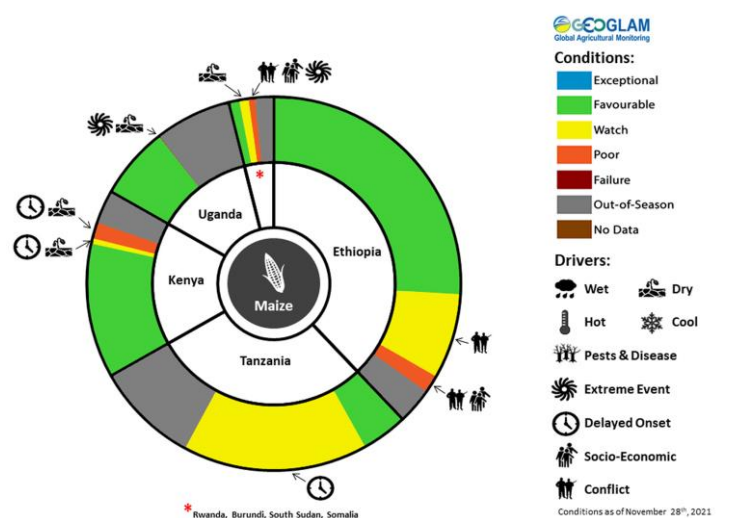


Crop condition map synthesizing Maize 1 crop conditions as of November 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are labeled on the map with their driver.**

In the north of the subregion, harvesting of main season cereals finalized in **Yemen** and is underway in **Eritrea, Djibouti, Ethiopia, South Sudan, and Sudan**. While conditions are generally favourable in **Sudan, Eritrea, and Djibouti**, flooding throughout the season has led to crop losses in northern **South Sudan**, and conflict and socio-economic challenges have contributed to below-average yields in **South Sudan, Yemen, and northern Ethiopia** for main season crops.

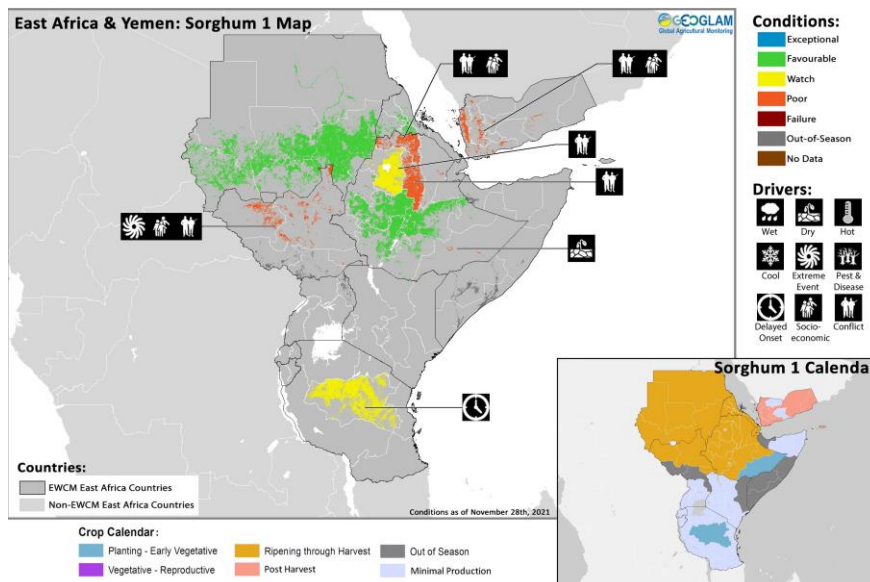
In the south of the subregion, harvesting of main season cereals is nearing completion in the main producing regions in **Kenya** under favorable conditions as well as in Karamoja, **Uganda** where crops have failed due to the combined impacts of flooding early in the season and persistent dryness during the growing period. Planting and development of second season maize and sorghum crops is underway in **Uganda, Rwanda, Somalia, the United Republic of Tanzania, Burundi, and Kenya**, and conditions are mixed as the start of

the October to December rainy season has been significantly delayed and below-average in many areas, resulting in a third consecutive season of dry conditions. As of late November, little to no rainfall has been observed across much of eastern and northern **Kenya**, south and central **Somalia**, south and southeastern **Ethiopia**, northern bimodal areas of the **United Republic of Tanzania**, and parts of **Uganda**. As November is the peak month of October-November-December rains, the lack of precipitation signals the possibility of seasonal failure in some areas. Forecasts indicate drier than normal conditions are likely to continue through December in most of these areas as well as across much of **Kenya, Rwanda, Burundi**, and in unimodal **United Republic of Tanzania** (See Regional Outlook Pg. 9). Warmer than normal temperatures are also forecast for most parts of the subregion in coming months,



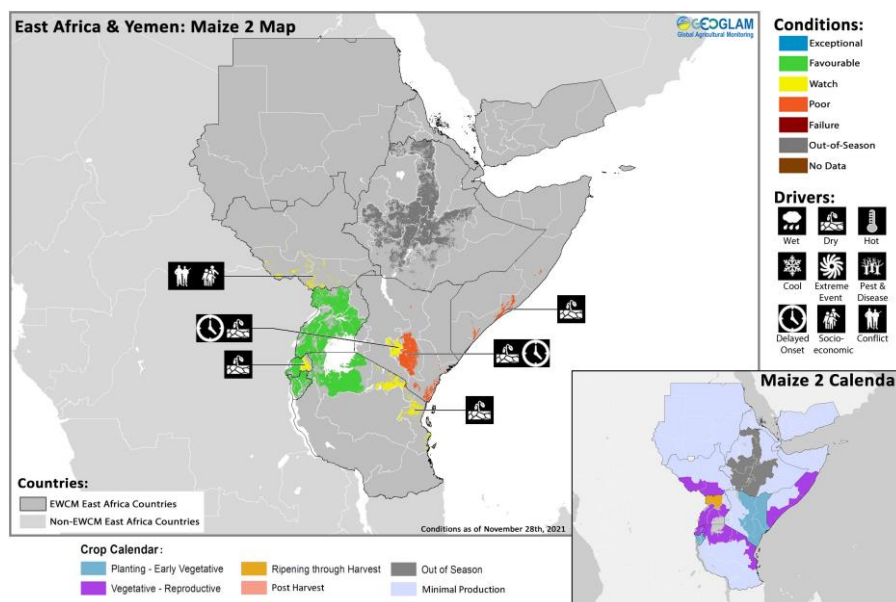
For detailed description of the pie chart please see description box on Pg. 19.

which could exacerbate dry conditions, particularly in eastern areas where severe seasonal rainfall deficits occurred. Based on forecast large-scale climate conditions, there are concerns for below-average precipitation for the March-April-May 2022 rainfall season in eastern areas of the subregion (See Seasonal Forecast Alert Pg. 5).



Crop condition map synthesizing Sorghum 1 conditions as of November 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are labeled on the map with their driver.**

Sudan, harvesting of main season millet and sorghum crops commenced in November, and overall conditions are favourable as crops in the east have improved from previous flood impacts. However, the removal of fuel subsidies in June 2021 as well as flood related trade disruptions from late July have further contributed to price increases of agricultural inputs and inflating production and transportation costs. In **South Sudan**, harvesting of first season cereals continued in November, and below-average yields are expected in most areas due to the combined impacts of conflict, socio-economic challenges, and widespread flooding. Early season rains resulted in the overflow of the Nile river, Sudd wetlands, and Lol and Sobat rivers and subsequent flooding over large areas. Since May, more than 809,000 people have been affected by the flooding in eight of the ten states, and over 75 percent of people affected are in Jonglei, Unity, and Upper Nile states. Water levels are still on the rise, and forecasts indicate additional rainfall is expected through early December in central and western areas (See Regional Outlook Pg. 9). This year is the third consecutive year of extreme flooding across parts of the country. Second season maize and sorghum crops are in vegetative to reproductive stage in the south, and concern remains due to persisting conflict and socio-economic concerns. In **Djibouti**, harvesting of main season millet and sorghum crops commenced under favourable conditions, and harvesting will finalize in December. In **Eritrea**, harvesting of main



Crop condition map synthesizing Maize 2 conditions as of November 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are labeled on the map with their driver.**

Northern East Africa & Yemen

In **Ethiopia**, harvesting of Meher season (Long Rains) cereals is underway, and conditions are mixed due to ongoing conflict and socio-economic challenges in the northern regions of Tigray, Afar, East Amhara, and West Amhara as well as flooding and potential impacts from desert locust presence in Afar. According to recent reports, the planting season in Tigray was missed in some parts of the region, and many agricultural inputs and support facilities have been damaged and looted due to the conflict. Additionally, depreciation of the country's currency has resulted in high prices of imported fuel and inputs, and conflict-related trade disruptions have further increased prices in affected areas. Elsewhere in the country, harvesting conditions are favourable. In South Somali region, planting of main season sorghum and teff crops is underway with concern due to prevailing dry conditions, and sorghum crops are unlikely to recover. In

season sorghum and winter wheat crops commenced under favourable conditions, and harvesting will finalize in January. In **Yemen**, harvesting of main season sorghum crops finalized in November with below-average yields due to persisting socio-economic challenges and conflict. Since the start of the new offensive in Marib this September, 40,000 people have been forced to flee, representing 70 percent of all displacements in the governorate since the start of the year.

Southern East Africa

In **Uganda**, harvesting of first season maize crops finalized in Karamoja with well below-average yields due to a late start of the season followed by flooding in early development stages as well as extreme dry spells during the growing period. Harvesting of second season maize crops began in the northwest while crops continue to develop in other areas, and overall conditions are favourable as crops in the northwest have

improved from previous dryness. However, erratic early season rains and forecast below-average precipitation in several areas through early December may impact final yields, particularly if rainfall levels experience a further decline before crop maturation (See Regional Outlook Pg. 9). In **Kenya**, harvesting of Long Rains cereals is complete or nearing completion in the main producing Rift Valley, West, and Central provinces, and conditions are generally favourable. Planting of Short Rains crops is underway, and crops are unlikely to recover given the delayed rainfall onset and below-average precipitation that has resulted in a third consecutive poor rainy season as well as a likely early cessation of rains before effective crop establishment (See Regional Outlook Pg. 9). In **Somalia**, *Deyr* season maize and sorghum crops are in vegetative to reproductive stage, and crops in most areas are unlikely to recover as the country is now experiencing a third consecutive poor rainy season since OND 2020 with severe drought in the south and widespread moderate drought in the northeast. In late November, the country's prime minister declared a state of emergency due to severe drought. Forecasts indicate a possible fourth consecutive failed rainfall season for the March to May rains and a possible extreme situation by April 2022 (See Seasonal Forecast Alert Pg. 5 and Regional Outlook Pg. 9). However, the northwest benefitted from June to October rains that could support crop development, though some incidences of desert locusts were also reported (See Desert Locust Alert Pg. 4). In **Burundi**, planting of second Season A maize crops is underway, and overall conditions are favourable. Despite some dry spells in November, the country has received sufficient rainfall from mid-September to support crop development. In **Rwanda**, second Season A maize crops are in vegetative to reproductive stage for harvest from January, and conditions in the east have degraded as the region is experiencing dry spells that may impact planted crops. In northern bimodal areas of the **United Republic of Tanzania**, *Vuli* season maize crops are in vegetative to reproductive stage while planting of *Masika* season wheat crops is underway. While conditions in the northwest have improved from previous dryness, concern remains for crops along the northern coast and northeast. In unimodal areas, planting of *Msimu* season cereals began in November with concern due to delayed rainfall onset.

Regional Outlook: Increasing rainfall deficits across the south with the lowest rainfall in the past 40 years recorded across parts of Kenya and Somalia

Late-October to late-November conditions were drier than average across most equatorial and southern areas (Figure 1-left). After a poor start to the season in eastern areas, rainfall deficits rapidly increased in recent weeks, actualizing earlier concerns about a forecasted poor rainfall season (See [June](#) to [November](#) 2021 CM4EW reports). Many eastern areas received very low rainfall amounts, between 10 and 50 mm, during what is typically the peak of seasonal rains. September 1st to November 20th rainfall totals are among the [lowest in the past 40 years](#) across eastern Kenya and southeastern and south-central Somalia, as well as in portions of central Kenya and [southern Ethiopia](#), according to preliminary data for November.

Figure 1-right shows the outlook for seasonal rainfall totals from October 1st to December 5th. Rainfall totals for most of the southern subregion may range from 30% to 75% of the average. The two-week forecast from November 23rd indicates increased chances for mainly below-average rainfall in southwestern Ethiopia, Uganda, Rwanda, Burundi, Tanzania, and across most of Kenya. Above-average rainfall is forecast during late November in southeastern Somalia and in portions of central-eastern Kenya and southeastern Ethiopia. This provides some hope for improved local water supply.

Models indicate that drier-than-average conditions will likely continue through most of the month of December. That outlook is based on [SubX forecasts from November 26th](#) as well as by WMO, NMME, and [ICPAC](#) forecasts released in early November. Some models indicate wetter conditions in coastal southeastern Kenya and coastal Tanzania. During early 2022, there are increased chances for above-normal rainfall in southern Tanzania, while the dry season in eastern and northern areas of the region will likely be hotter than normal, according to NMME, WMO, and C3S multi-model ensemble forecasts from November (not shown).

Long-lead outlooks for the March-April-May (MAM) 2022 rainfall season highlight the troubling possibility of yet another poor rainfall season in eastern areas. Large-scale conditions that suppress MAM rainfall are forecast to be active (See Seasonal Forecast Alert Pg. 5). This is highly concerning, considering the very poor rainfall performance during OND 2021 and the previous sequence of below-average 2020 OND and 2021 MAM seasons.

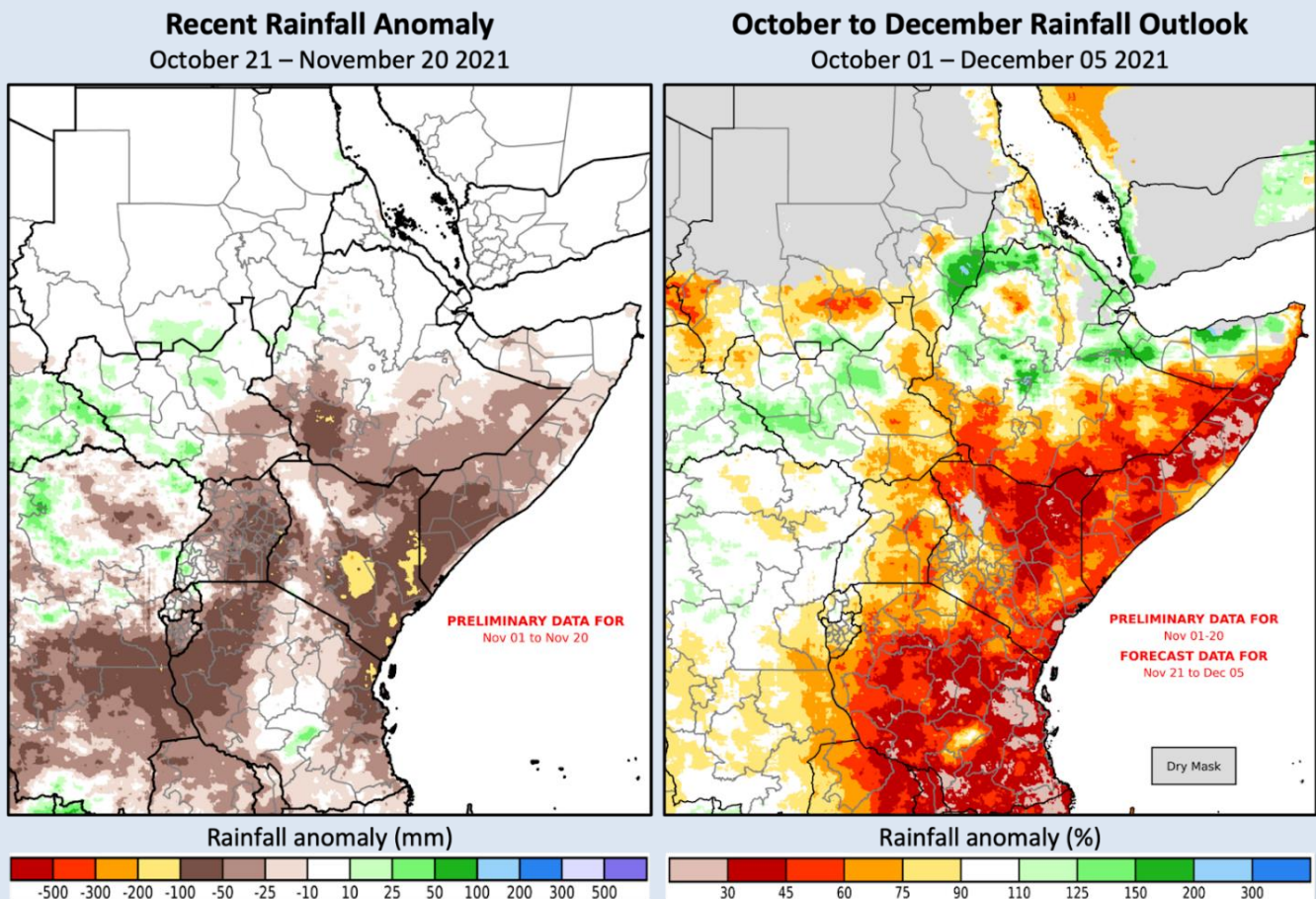
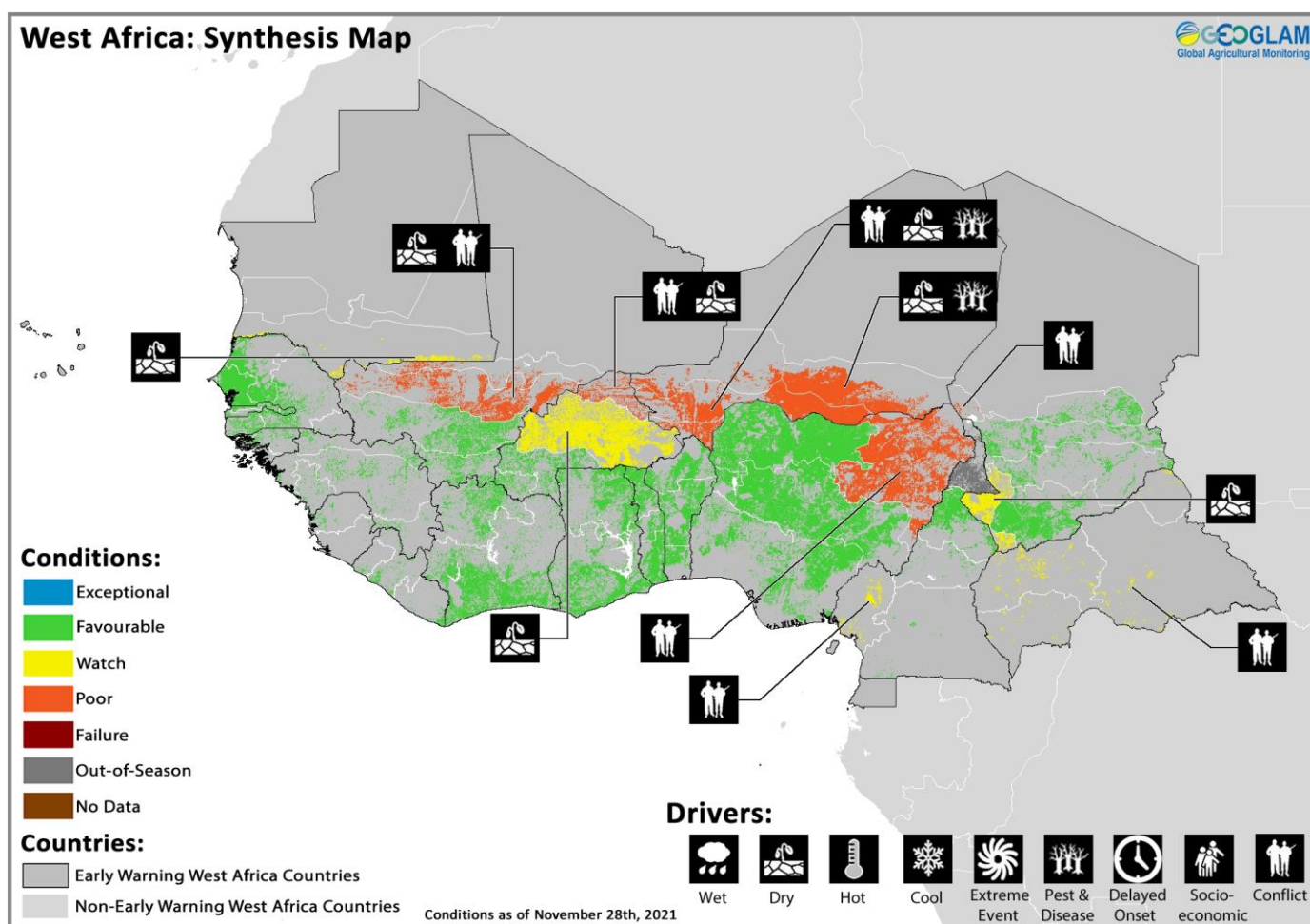


Figure 1. October 21st to November 20th rainfall anomaly, and October 1st-to-December 5th rainfall anomaly outlook. Both panels are CHC Early Estimates, which compare 2021 rainfall amounts to the 1981-2020 CHIRPS average. On the left is the rainfall anomaly for October 21st to November 20th, expressed in millimeters (mm). The right panel indicates what the post-October 1st rainfall percent of average would be if the 15-day unbiased GEFS forecast from November 21st materializes.

Source: UCSB Climate Hazards Center

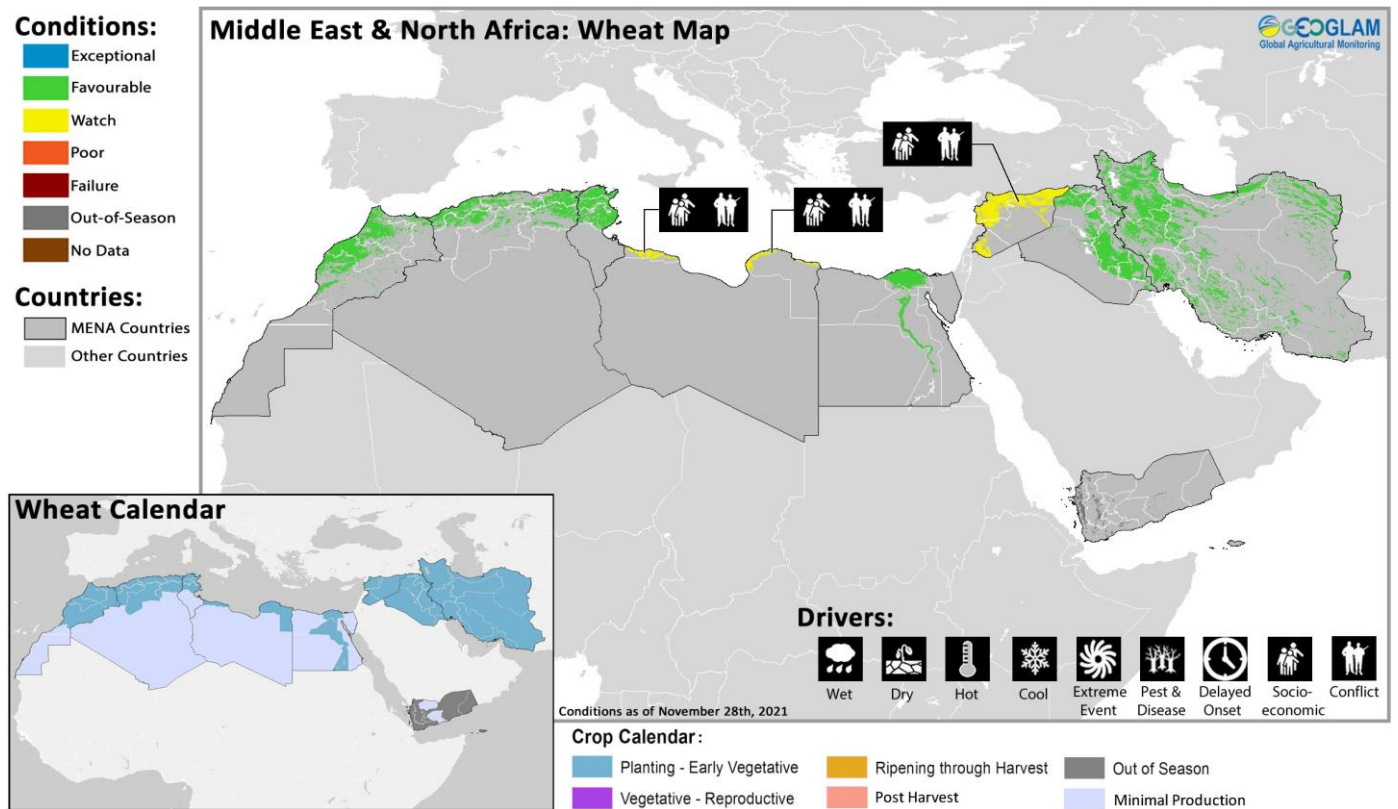
West Africa



Crop condition map synthesizing information as of November 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Crops that are in other than favourable conditions are labeled on the map with their driver.**

In the south of the subregion, harvesting of main season maize finalized in central **Cameroon** and is nearing completion in western **Chad** and the **Central African Republic** while crops continue to develop in the southern half of **Cameroon**. Harvesting of main season sorghum crops finalized in **Togo**, **Benin**, and central **Cameroon** and is nearing completion in **Cote d'Ivoire**, northern **Ghana**, and the southern half of **Chad**. In the north of the subregion, harvesting of main season cereals is nearing completion while planting of second season rice crops is underway in **Mauritania** and **Mali**. Conditions are generally favourable in coastal countries of the Gulf of Guinea; however, in the Sahel, an uneven distribution of rainfall has resulted in below-average yields in parts of northern **Burkina Faso**, central **Mali**, and **Niger** and is causing concern in central **Burkina Faso**, southern **Chad**, and **Mauritania**. Additionally, conflict continues to impact agricultural activities and yields in northeastern **Nigeria**, northern **Burkina Faso**, the **Central African Republic**, Lac region in **Chad**, central **Mali**, west and southeast regions of **Niger**, and southwestern **Cameroon**. In the Lake Chad Basin, a deterioration of the security situation throughout the year has compounded disruptions to agricultural activities and markets. In **Nigeria**, the security situation has also deteriorated in the northcentre, northwest, and southeast, impacting trade flows and agricultural activities in affected areas. In northern **Burkina Faso**, severe to moderate rainfall deficits between September and October, including dry spells of more than 14 days during the critical flowering and maturation stage, are expected to have a significant impact on crop performance. In **Mali**, the provision of subsidized seeds by the government resulted in an expansion in the area planted with maize, while plantings of sorghum and millet contracted as farmers switched to more profitable crops, mainly cotton, the country's main agricultural export commodity. However, production of coarse grains is estimated to be slightly below the average level in 2021, reflecting erratic rains that curbed crop yields. In addition, planted area of rice crops contracted compared to the previous year due to a deteriorated security situation in major rice producing areas as well as erratic rainfall and periods of drought in parts of the central and northern regions, and production is forecast to be nearly 10 percent below-average. In **Niger**, aggregate cereal production is forecast to decrease significantly compared to the near-average 2020 output due to unfavourable weather conditions as well as a deterioration of the security situation that has resulted in reduced planted area and abandoned crop fields. Erratic rainfall distribution in combination with an early cessation of rains in major producing west, south, and eastern regions as well as impacts from pests negatively impacted crops during key development stages. Additionally, heavy rainfall and floods in parts of Maradi and Zinder regions resulted in localized crop losses. Similarly, in **Chad**, unfavorable weather conditions in parts of the country and persisting insecurity, mainly in the Lac Region, have caused localized production shortfalls. Pockets of unfavorable weather curbed the area sown and affected yields in parts of **Mauritania**, leading to expected below-average cereal outputs.

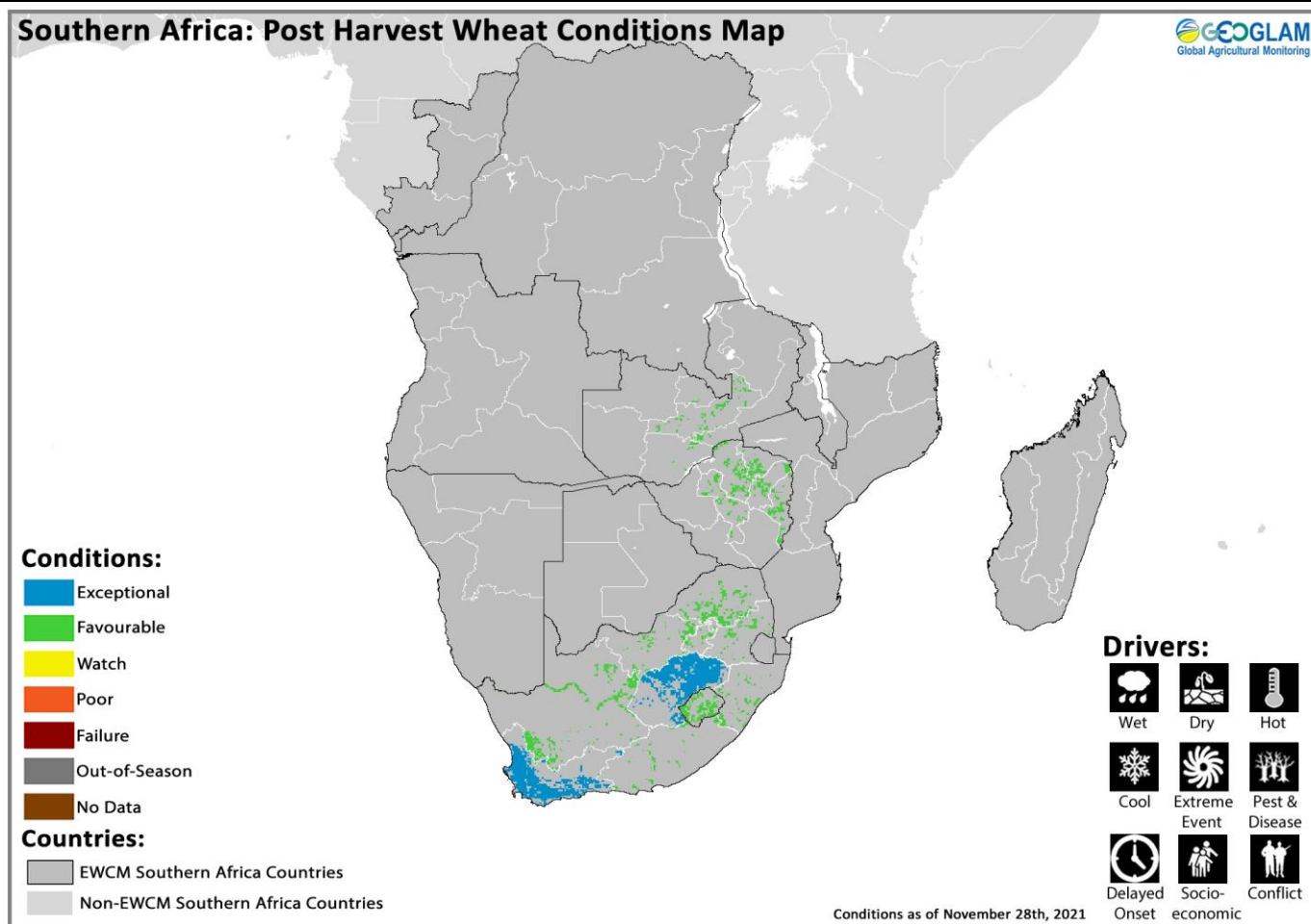
Middle East & North Africa



Crop condition map synthesizing wheat conditions as of November 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Crops that are in other than favourable conditions are labeled on the map with their driver.**

In the Middle East and North Africa, planting of winter wheat crops continued in **Algeria, Egypt, Libya, Morocco, Tunisia, Iran, Iraq, and Syria**. As of the second dekad of November, significant soil moisture deficits remain in parts of **Tunisia, Algeria, and Morocco**. Additionally, significant rains have not yet been received in parts of **Syria**, and cumulative precipitation amounts fluctuated from slightly below-average to average in **Iraq and Iran**. Throughout the subregion, rainfall amounts in the last dekad of November and in December will be critical in determining seasonal outcomes. In addition, ongoing conflict and socio-economic challenges in **Syria and Libya** continue to impact agricultural activities. In **Egypt**, harvesting of the main summer-planted rice crop accounting for 80 percent of aggregate rice production finalized under favourable conditions. Official estimates of the planted area surpassed the record 2020 level by nearly 4 percent, and yields are expected to be near-average. The mostly irrigated *Nili* season (Nile Flood) rice crop is in vegetative to reproductive stage for harvest from December, and growing conditions are favourable with sufficient irrigation water supply and favourable weather conditions. Additionally, harvesting of main season maize crops finalized in November under favourable conditions with near-average yields. However, aggregate 2021 maize production is expected at a below-average level due to a decline in the area planted of the main season crop as some farmers shifted to more profitable cassava.

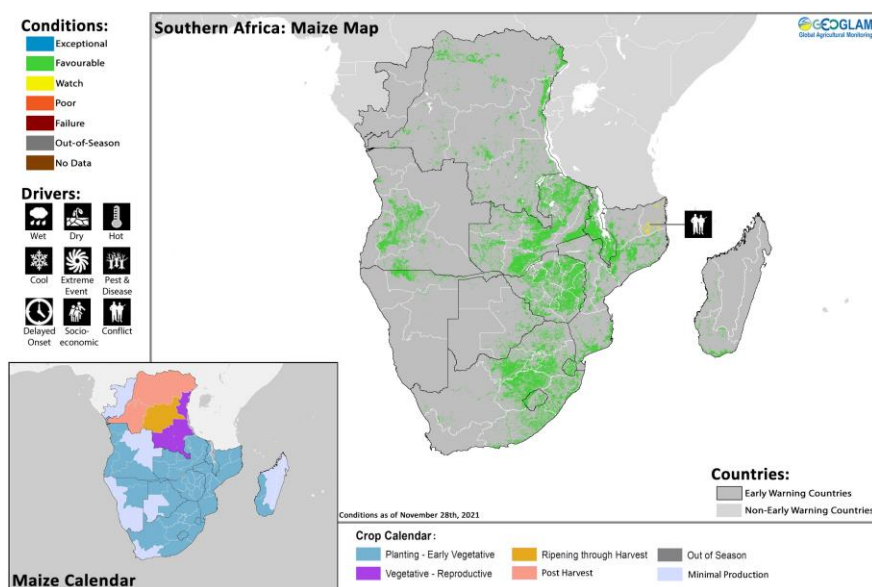
Southern Africa



Crop condition map synthesizing wheat conditions as of November 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Crops that are in other than favourable conditions are labeled on the map with their driver.**

In Southern Africa, harvesting of winter wheat crops finalized in **Zimbabwe, Lesotho, South Africa, and Zambia** under favourable conditions. In **South Africa**, normal to above-normal rainfall during the season supported above-average yields in the major producing Western Cape as well as the Eastern Cape and Free State. National output is expected to be similar to the previous year and above the five-year average.

Planting of main season cereals is underway in **Botswana, eSwatini, Lesotho, Madagascar, Malawi, Mozambique, Namibia, South Africa, Zambia, and Zimbabwe** under generally favourable conditions despite rainfall deficits in some areas (See Regional Outlook Pg. 13). However, there is concern in northeastern **Mozambique** due to ongoing conflict. While current planting conditions are favourable in the south and east of **Madagascar**, the impacts from four years of drought and one of the most acute droughts in 40 years during the previous 2021 cropping season continues to impact farming communities across the south. Additionally, early season rainfall deficits worsened in some parts of the country in November, particularly in the central region, and below-average rainfall is likely to continue through early December in the north and west (See Regional Outlook Pg. 13). In **Angola**, current planting



Crop condition map synthesizing Maize conditions as of November 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are labeled on the map with their driver.**

conditions are favourable; however, cumulative rainfall amounts are considerably below-average in some areas with above-average temperatures, and additional rainfall will be needed to support crop development. In **Mozambique**, agroclimatic conditions are generally favourable, particularly over Zambezia province, despite below-average rainfall in Nampula and above-average temperatures in Nampula and Manica provinces. However, agricultural activities continue to be impacted by ongoing insecurity in the northern province of Cabo Delgado where nearly 800,000 people have been displaced, nearly half of the province's population. In **South Africa**, conditions are favourable with widespread rain since mid-November, supporting sowing activities across the entire main producing region. Additionally, remunerative domestic prices as well as a forecast of average to above-average rainfall amounts throughout the cropping season are expected to keep the maize acreage at an above-average level (See Regional Outlook Pg. 13). In **Zambia**, planting conditions are generally favourable; however, some regions have not yet received onset rains while others have recorded sporadic precipitation. In the **Democratic Republic of Congo**, harvesting of main season rice and maize crops is underway while main season sorghum crops continue to develop for harvest from January, and overall conditions are favourable despite uneven rainfall distribution in the southeast.

Regional Outlook: Above-normal December to February rainfall forecast across the southern half of the region

Figure 1-left shows the outlook for season-to-date rainfall totals, from October 1st to December 5th, including final, preliminary, and forecast amounts. Following average to drier-than-average conditions in October and early November in most eastern areas, ample rains occurred in mid-to-late November in portions of Zimbabwe, northeastern South Africa, and some surrounding areas. Early season rainfall deficits worsened in portions of Madagascar and in central and northeastern Angola. Rainfall in northern areas of Malawi and Mozambique was mainly below-average during November.

Models indicate that drier-than-average conditions will likely continue into mid-December in Madagascar, eastern Zambia, northern Malawi, central and northern Mozambique, and central Angola. Areas of Zimbabwe may be drier than average in early-to-mid December. This outlook is based on a two-week unbiased GEFS forecast from November 24th and on SubX week-3 and 4 forecasts (Figure 1-middle). According to SubX, northwestern Angola, eastern Namibia, southern Botswana, and central South Africa may receive above-normal precipitation.

There are elevated chances of above-normal December-January-February 2021-22 rainfall in the southern half of the region, including in South Africa, Lesotho, and portions of Namibia, Botswana, and Zimbabwe (Figure 1-right). This is consistent with prevailing La Niña conditions as well as forecast positive Southern Indian Ocean Dipole conditions, both of which can enhance rainfall. During La Niña last year, many of these areas experienced above-average rainfall, and some areas experienced damages from severe weather and flooding. Northwestern Angola may experience a below-average rainfall season, based on indications from models in the NMME, C3S, and WMO forecasts for the December-to-April period.

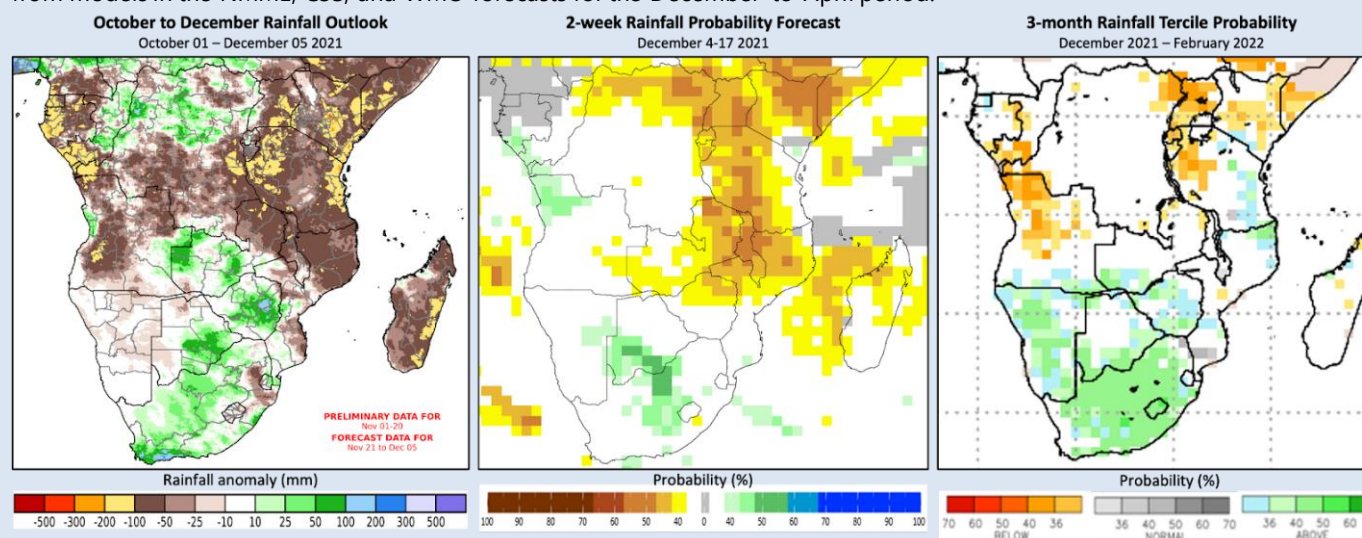
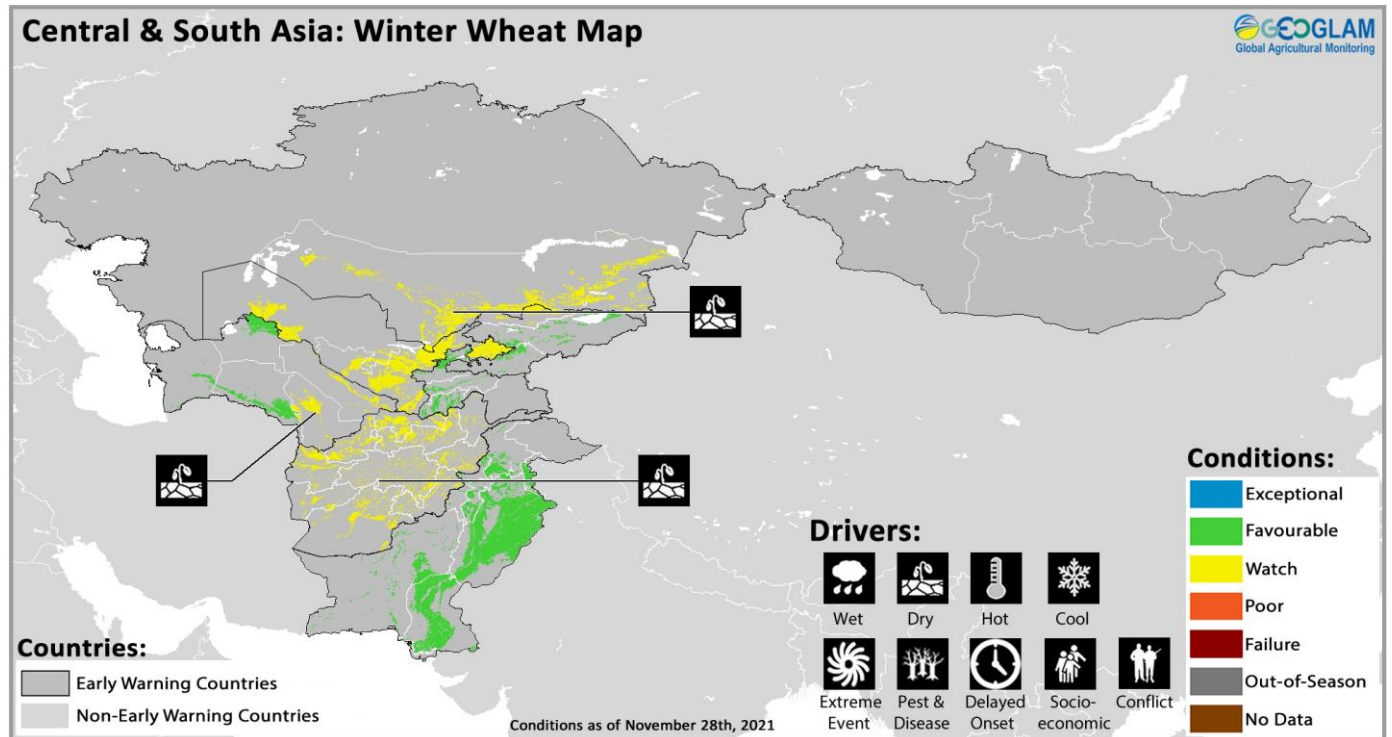


Figure 1. A recent rainfall anomaly outlook, a 2-week rainfall probability forecast, and a 3-month rainfall probability forecast. The left panel is a CHC Early Estimate, which compares the outlook for October 1st -December 5th 2021 rainfall amounts to the 1981-2020 CHIRPS average. This outlook uses CHIRPS final data for October, preliminary data for November 1st-20th, and a forecast for November 21st-December 5th. The middle panel shows the IRI SubX Precipitation Biweekly Probability Forecast for December 4th to 17th, issued on November 19th. The forecast is based on statistically-calibrated tercile category forecasts from three SubX models. Image from the [IRI Subseasonal Forecasts Maproom](#). The right panel shows the NMME probabilistic forecast for December-January-February precipitation, based on November initial conditions. Colors indicate the dominant tercile category forecast across models; white indicates no dominant category. NMME image from [NOAA CPC](#).

Source: UCSB Climate Hazards Center

Central & South Asia



Crop condition map synthesizing Winter Wheat conditions as of November 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Crops that are in other than favourable conditions are labeled on the map with their driver.**

In Central and South Asia, planting and development of winter wheat continued in November under mixed conditions as previously forecast dry conditions are prevailing across parts of **Afghanistan**, southern **Kazakhstan**, northern **Kyrgyzstan**, Mary and Chardzhou provinces in **Turkmenistan**, and **Uzbekistan**. Conversely, conditions remain favourable in central and southern **Kyrgyzstan**, **Tajikistan**, central and western **Turkmenistan**, and **Pakistan**. In **Afghanistan**, field reports indicate that more than 50 percent of fields normally sown with winter wheat are currently fallow as cumulative precipitation from early October to late November has been below-average and erratic. There is only limited time left in the planting window before winter sets in by early December, and snow water volumes are indicating hydrological drought conditions that are likely to impact irrigation water supply. Farmers are likely to face a second consecutive year of drought for the 2021/22 crop season with the current La Niña event expected to bring significantly drier than normal conditions (See Regional Outlook Pg. 15). However, fields left fallow may be used for spring wheat cultivation, which could counterbalance a decrease in winter wheat production if February through April rains are favourable and if sufficient inputs are available. In **Kyrgyzstan**, improved precipitation levels in October were followed by a return to below-average rainfall amounts in the first two dekads of November across the main producing northern region. Additionally, lack of rainfall as well as late melting of glaciers in previous months has led to insufficient irrigation water supply. In **Uzbekistan**, prolonged dry conditions have resulted in below-average soil moisture levels in most croplands. In **Tajikistan**, increased rainfall amounts in the first dekad of November improved vegetation conditions except in localized areas of Khatlon province in the southwest. In southern **Kazakhstan**, soil moisture levels are below-average, and the absence of snow cover may result in damage to winter wheat fields, particularly in Uigur, Sarkan, Eskeldy, and Zhambyl districts of Almaty region. Conversely, conditions in Zhambyl region are favourable. In **Pakistan**, winter wheat planting is underway, and current conditions are favourable. However, rains have been below-average across most of the country since September, raising concerns about the impact on crops, particularly for the minor rainfed areas locally known as barani areas. The Federal Committee on Agriculture fixed wheat production target at 28.9 million tonnes, which is above the five-year average, from an area of 9.2 million hectares. Whether this target can be achieved will depend on the weather conditions and irrigation supplies in the following months. *Kharif* (summer) season rice crops remain under favourable conditions as below-average rains since September have been favourable for harvesting operations, and production is forecast at an above-average level.

Regional Outlook: Drier than average conditions across the region are forecast to continue through December

Late-October to late-November conditions were drier than average across most of the region, and forecasts indicate that drier-than-average conditions will continue. Precipitation totals for October to early December are likely to be 10 to 50 mm below-average (45 to 75% of average) from southern Kazakhstan to central-southern Afghanistan, based on preliminary data and a two-week forecast (Figure 1-left). Larger deficits are possible in high-elevation areas in northern Afghanistan, western Tajikistan, eastern Uzbekistan, and southern Kazakhstan. [SubX week-3 and 4 forecasts](#) indicate below-normal precipitation into mid-December.

Chances of below-normal precipitation remain higher than normal in the region through at least February, according to multiple forecasting centers and consistent with prevailing La Niña conditions. WMO, NMME, and C3S multi-model ensembles forecast ~40% chances of below-normal December-January-February (DJF) precipitation in many of the areas with early season precipitation deficits. DJF is a critical season for annual rainfall and snow accumulation. The WMO forecast indicates that below-normal DJF precipitation is most likely in Afghanistan, Turkmenistan, Uzbekistan, western Tajikistan, northern and central Pakistan, and portions of southern Kazakhstan (Figure 1-middle). Longer-lead forecasts indicate increased chances for drier-than-normal conditions in the region during March-April-May 2022, mainly for central and more northern areas from eastern Kyrgyzstan to southeastern Kazakhstan (Figure 1-right). For central and northern Afghanistan, multiple models predict that below-normal March-April-May precipitation is likely; however, these are not the majority in the WMO ensemble forecast.

The possibility of below-average precipitation through the 2021–2022 season is highly concerning, especially given that [October-to-May precipitation totals were very low last year](#). Dry weather conditions during the 2020–2021 winter wheat and spring wheat-growing seasons led to water deficits during key months of crop development and resulted in poor and failed crop conditions for winter wheat across parts of the region. Poor or mediocre early-to-mid-season precipitation performance this year could produce lasting negative impacts on crops, limited irrigation, and low snowpack and reservoir levels and could also prolong recovery from 2020–2021 drought-affected areas.

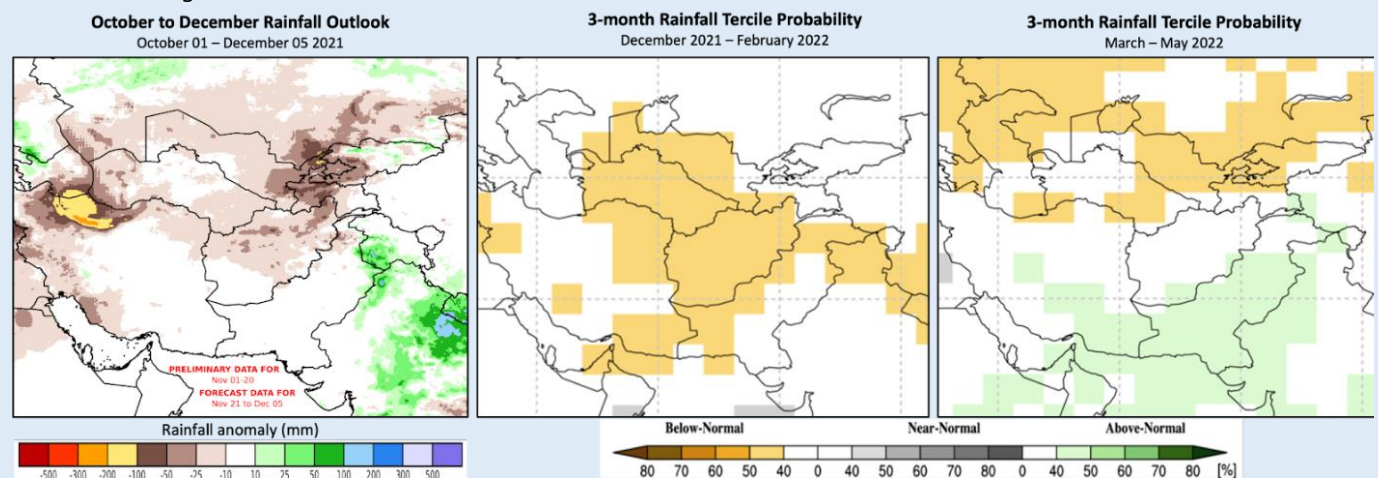
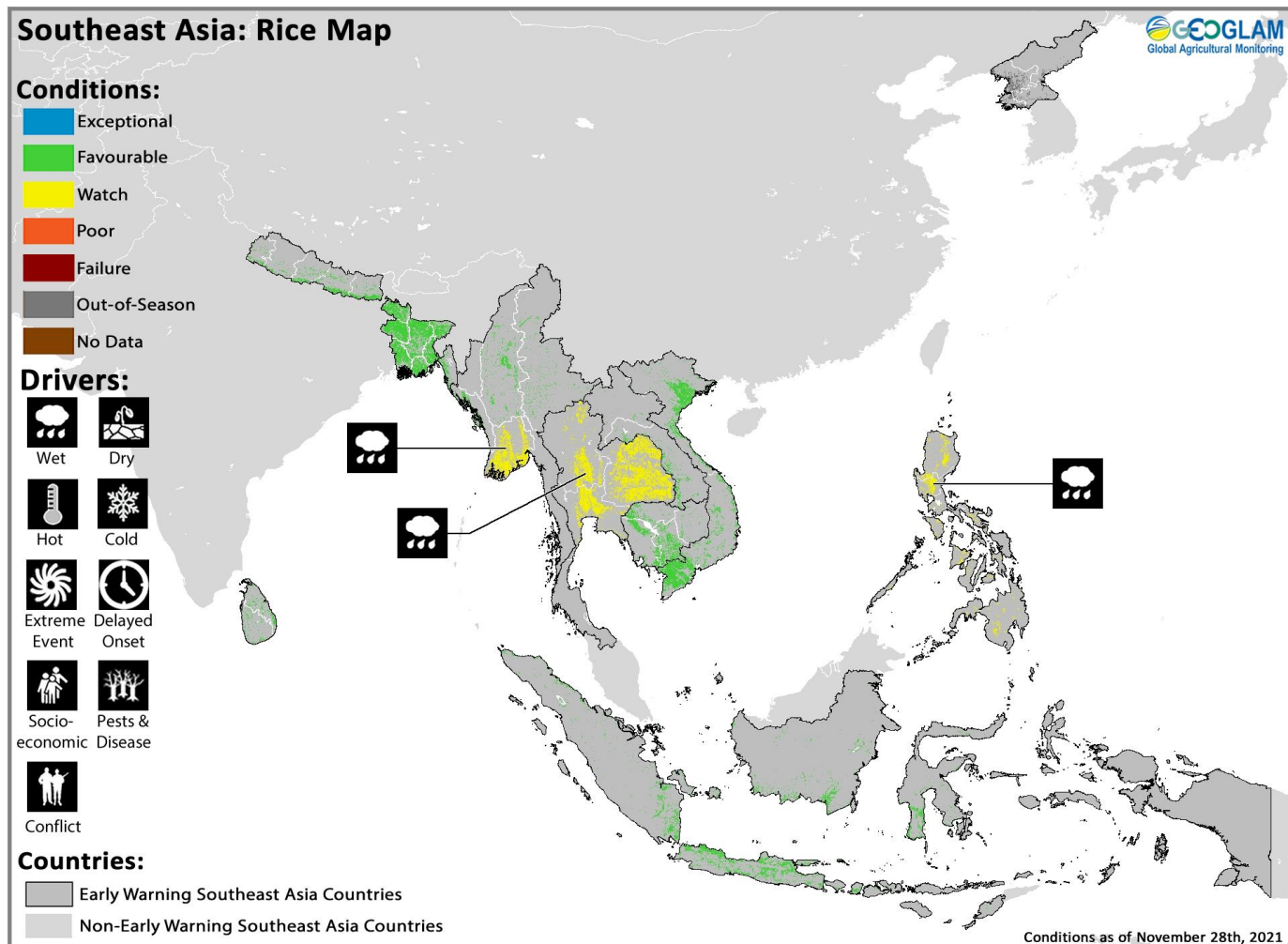


Figure 1. October-to-December 5th rainfall anomaly outlook, a 3-month rainfall probability forecast for December to February, and a 3-month rainfall probability forecast for March to May. The left panel is a CHC Early Estimate, which compares the outlook for October 1st–December 5th 2021 rainfall amounts to the 1981–2020 CHIRPS average. This outlook uses CHIRPS final data for October, preliminary data for November 1st–20th, and a forecast for November 21st–December 5th. The middle and right panels are WMO probabilistic forecasts for December-to-February 2021–2022 precipitation (middle) and March–April–May 2022 precipitation (right), based on models initialized in November. From [WMO Lead Centre Long-Range Forecast Multi-Model Ensemble](#).

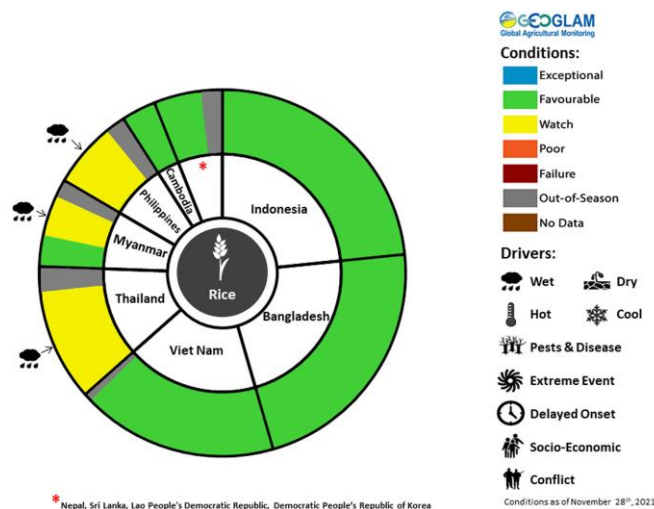
Source: Climate Hazards Center

Southeast Asia



Crop condition map synthesizing rice conditions as of November 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Crops that are in other than favourable conditions are labeled on the map with their driver.**

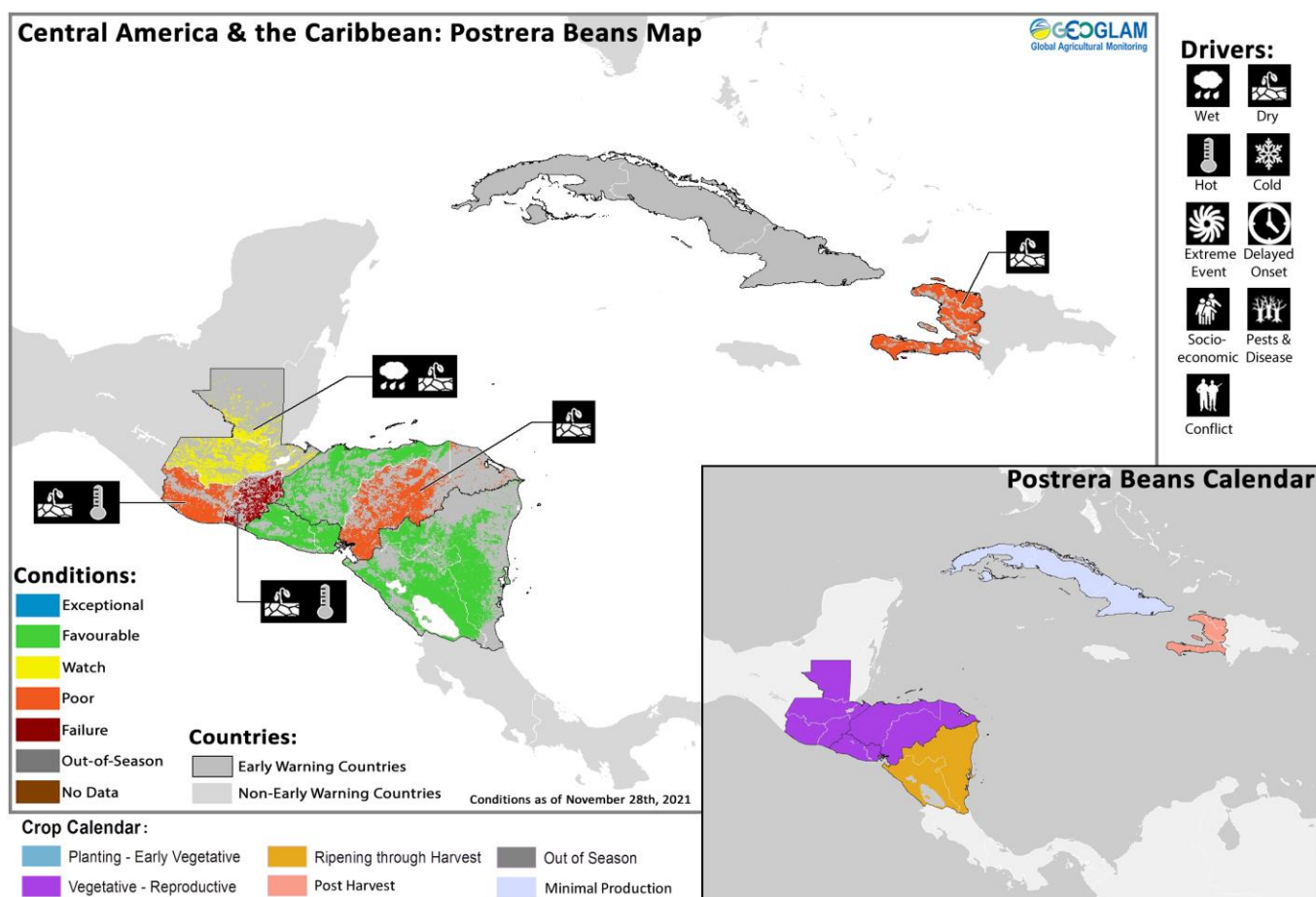
In northern Southeast Asia, harvesting of wet-season rice is underway and nearing completion in some countries. Overall conditions are mixed as heavy rainfall from developed tropical cyclones in October resulted in flood damage during the grain filling stage across large areas of southern **Myanmar**, **Thailand**, and the **Philippines** and localized parts of **Cambodia**. Final yields in affected areas are expected to be reduced. Planting of dry-season rice has commenced in **Cambodia** and South **Viet Nam** under favourable conditions with sufficient irrigation water supply. In **Indonesia**, conditions are favourable for dry-season rice as harvesting continues, albeit at a slower pace than last year, and yield is forecast to be slightly better than the previous year due to sufficient precipitation during the growing season. While heavy rainfall from early November has resulted in river overflows and flooding and landslides across various parts of the country, no crop damage has been reported. Sowing of wet-season rice continues under favourable conditions. In the **Philippines**, wet-season rice is harvesting under mixed conditions due to damage from heavy rainfall, most notably from severe Tropical Storm Maring that impacted northern parts of Luzon in October. In **Thailand**, wet-season rice is harvesting under mixed conditions as a result of excess rainfall and widespread flooding during October in the north and northeastern regions. While crops in non-flooded areas are expected to benefit from increased rainfall, the damaged area is likely to reduce national production. Land preparation is underway for dry-season rice, and planted area is expected to increase from the previous year due to sufficient irrigation water supply. In northern **Viet Nam**, wet-season rice is harvesting under favourable conditions with yields expected to be slightly above last year's level due to favourable weather conditions throughout



For detailed description of the pie chart please see description box on Pg. 19.

the growing season. In the South, conditions are favourable for the harvesting of autumn-winter (wet-season) rice and the beginning of winter-spring (wet-season) rice sowing. In **Laos**, harvesting of wet-season rice is nearing completion under favourable conditions. In lowland areas, harvested area is estimated around 780,000 hectares, a slight increase compared to the previous year due to an increase in planted area, with an estimated production of 3.3 million tons and yield of 4.3 tons per hectare due to good weather conditions. In upland areas, harvested area is estimated around 100,000 hectares with an estimated production of 200,000 tons. Land preparation of dry-season rice is underway. In **Myanmar**, wet-season rice is mostly in panicle forming to heading stage. Of the 6.07 million hectares planted, over 580,000 hectares have been harvested with a yield of 3.79 tons per hectare, similar to the previous year. However, monsoon flooding in November affected over 31,000 hectares and damaged 14,000 hectares, though 8,200 hectares have been replanted. While overall growing conditions are favourable in areas not impacted by flooding, escalating violence in the northwest in Magway and Sagaing regions may limit agricultural activities in affected areas, according to UNOCHA. In **Cambodia**, harvesting of wet-season rice, accounting for more than 80 percent of national production, is nearing completion with an average yield of 3.5 tons per hectare, a slight decrease from the previous year due to heavy rainfall and flooding during the late stage of growing. Planting of the mostly irrigated dry-season rice crop is underway, and growing conditions are favourable due to sufficient irrigation water supply. In **Sri Lanka**, land preparation and planting of the 2022 main *Maha* season maize and rice crops is ongoing under generally favourable weather conditions. The area planted for both crops, and particularly rice, is expected to increase compared with 2021 due to the high level of domestic prices. In **Bangladesh**, harvesting operations for the 2021 *Aman* season rice crop are ongoing under favourable weather conditions, and the output is estimated at a bumper level. Land preparation and early planting of the mostly irrigated *Boro* season rice crop is underway, and conditions are favourable despite some localized losses due to flooding. In **Nepal**, harvesting operations for main season rice crops are ongoing and are expected to finalize by mid-December. The 2021 output is forecast at an above-average level at 5.6 million tonnes. Planting of winter wheat started in late October under generally favourable weather conditions, and the area planted is expected to be above-average. Concerns exist for the availability of inputs due to COVID-19 related disruptions, though the situation has improved considerably from last year.

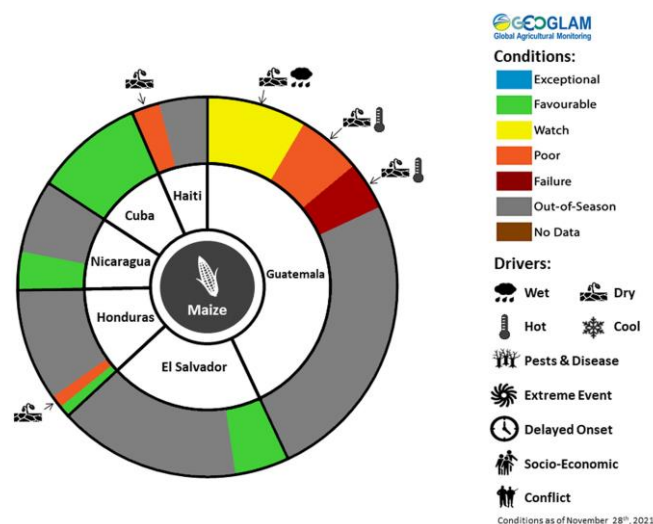
Central America & Caribbean



Crop condition map synthesizing Postrera season conditions as of November 28th. Crop conditions over the main growing areas are based on a combination of inputs including remotely sensed data, ground observations, field reports, national, and regional experts. **Conditions that are other than favourable are labeled on the map with their driver.**

In Central America, *Segunda/Postrera* season cereals are in vegetative to reproductive stage for harvest from December under mixed conditions as below-average to well below-average yields resulted in southern **Guatemala** and southern **Honduras** due to significant rainfall deficits (See Regional Outlook Pg. 19), and concern remains in north and central **Guatemala** due to erratic and below-average rains. Notably, in southeastern and to a lesser extent southwestern **Guatemala**, well below-average and failed yields resulted for both

maize and bean crops with the worst impacts for smallholder and subsistence farmers where significant losses resulted. Conditions remain favourable elsewhere in the subregion, and annual maize production in **Guatemala** and **Honduras** is higher than the previous year and above-average in **Guatemala** at the national level. In **Nicaragua**, conditions are favourable due to rainfall improvement from early November and despite rainfall deficits in the south. Land preparation is underway for *Apante* season bean crops, and planting will begin in December. In **Guatemala**, crop yields in the southwest are below-average, and crops in the southeast have failed due to erratic rains with periods of dry spells, particularly in the southeastern Dry Corridor, and despite extreme rainfall in late October as it was insufficient for significant vegetation improvement. This has led to reduced yields and significant losses, especially for smallholder and subsistence farmers that have lost between 60 and 100 percent of the *Segunda* season bean crop. Additionally, concern remains in the north and centre due to erratic and below-average rains since mid-October. In **El Salvador**, overall conditions remain favourable despite localized flood losses in the west, where maize production is concentrated, and despite some dryness in the east, where bean production is concentrated, as bean crops are more tolerant to dryness. In **Honduras**, crops in the south are unlikely to recover due to erratic and below-average rainfall from late September through early November. Conversely, conditions in the north remain favourable. Similarly, harvesting of main season rice crops finalized in November with below-average yields in the south due to persistent dryness and near-average yields in the north.



For detailed description of the pie chart please see description box on Pg. 19.

In the Caribbean, harvesting of main and second season cereals is complete or nearing completion in **Cuba** and **Haiti** while planting of main season rice crops is underway in **Cuba**. In **Haiti**, harvesting of second season maize and bean crops finalized in November under poor conditions due to below-average rainfall amounts between August and September, resulting in severe rainfall deficits and seasonal totals among the lowest in the past 40 years (See Regional Outlook Pg. 19). Additionally, crops were also impacted by the August earthquake, which caused significant damage to agricultural infrastructure, and Tropical Depression Grace, which impacted the Sud and Sud-Est departments with flooding and landslides. Land preparation for second season rice and third season bean crops is underway, and planted area is likely to be limited by expensive and scarce availability of agricultural inputs. In **Cuba**, harvesting of main season maize crops finalized in November while harvesting of second season rice crops is nearing completion, and overall conditions are favourable. According to official estimates, paddy production during the third quarter of 2021 is expected to be similar to the previous year's level, reflecting good yields despite below-average precipitation during the September to October period. Additionally, planting of main season rice crops commenced under favourable conditions for harvest from April 2022.

Regional Outlook: Below-average rainfall across parts of Central America and Hispaniola forecast to continue through the start of December

Late-October to late-November conditions were drier than average in Haiti, the Dominican Republic, and across much of Central America (Figure 1-left). Many of these areas previously received erratic and generally below-average rainfall earlier in the growing season. Preliminary data indicates that rainfall in recent weeks was 50 to 100+ mm lower than typical amounts (45 to 75% of average) in Belize, central and northern Guatemala, eastern Honduras, north-central and southeastern Nicaragua, and in areas to the south. Drier-than-average conditions are forecast for late November through early December in central and northern Guatemala, Belize, Honduras (except along the Caribbean coast), and in most of Nicaragua.

Figure 1-right shows an outlook for August 21st to December 5th rainfall percent-of-average, based on CHIRPS final and preliminary data through November 20th, and a two-week forecast from November 21st. Substantially below-average season rainfall totals (45 to 75% of average) are likely in central and northeastern Guatemala, central Belize, across much of Honduras, and north-central Nicaragua. Severe deficits are identified in Hispaniola. According to these estimates, seasonal totals are among the [lowest in the past 40 years](#) in Haiti, the Dominican Republic, and in portions of Honduras, Belize, and Guatemala.

There are increased chances of above-normal December-January-February 2021-22 precipitation in western Nicaragua, according to NMME and CS3 multi-model forecasts (not shown).

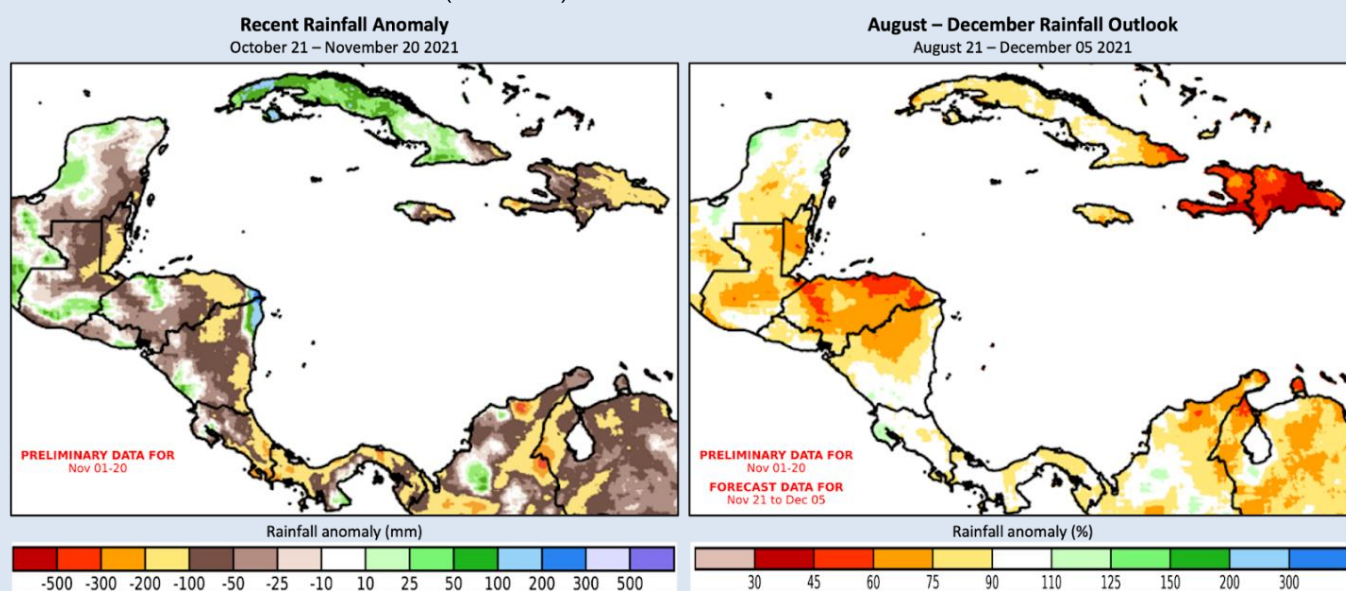


Figure 1. Recent 6-pentad rainfall anomaly and a recent 21-pentad rainfall anomaly. Both panels are CHC Early Estimates, which compare 2021 rainfall amounts to the 1981-2020 CHIRPS average. On the left is the rainfall anomaly for October 21st to November 20th, expressed in millimeters (mm). The right panel indicates what the August 21st to December 5th rainfall percent of average would be if the 15-day unbiased GEFS forecast from November 21st materializes.

Source: UCSB Climate Hazards Center

Pie Chart Description: Each slice represents a country's share of total regional production. The proportion within each national slice is colored according to the crop conditions within a specific growing area; grey indicates that the respective area is out of season. Sections within each slice are weighted by the sub-national production statistics (5-year average) of the respective country. The section within each national slice also accounts for multiple cropping seasons (i.e. spring and winter wheat) and are a result of combining totals from multiple seasons to represent the total yearly national production. When conditions are other than favourable icons are added that provide information on the key climatic drivers affecting conditions.

Information on crop conditions in the main production and export countries can be found in the Crop Monitor for AMIS, published December 2nd, 2021.

Appendix

Crop Conditions:

Exceptional: Conditions are much better than average* at time of reporting. This label is only used during the grain-filling through harvest stages.

Favourable: Conditions range from slightly lower to slightly better than average* at reporting time.

Watch: Conditions are not far from average* but there is a potential risk to final production. The crop can still recover to average or near-average conditions if the ground situation improves. This label is only used during the planting-early vegetative and the vegetative-reproductive stages.

Poor: Crop conditions are well below-average. Crop yields are likely to be 10-25% below-average. This is used when crops are stunted and are not likely to recover, and impact on production is likely.

Failure: Crop conditions are extremely poor. Crop yields are likely to be 25% or more below-average.

Out of Season: Crops are not currently planted or in development during this time.

No Data: No reliable source of data is available at this time.

"Average" refers to the average conditions over the past 5 years.

Note: In areas where conflict is a driver of crop condition, crop conditions are compared to the pre-conflict average rather than the average conditions over the past 5 years. In areas where conflict is protracted and based on expert analysis on a case by case basis, crop conditions will be compared to the average conditions over the past five years.

Drivers:

These represent the key climatic drivers that are having an impact on crop condition status. They result in production impacts and can act as either positive or negative drivers of crop conditions.

Wet: Higher than average wetness.

Dry: Drier than average.

Hot: Hotter than average.

Cool: Cooler than average or risk of frost damage.

Extreme Events: This is a catch-all for all other climate risks (i.e. hurricane, typhoon, frost, hail, winterkill, wind damage, etc.)










Delayed-Onset: Late start of the season.

Pest & Disease: Destructive insects, birds, animals, or plant disease.

Socio-economic: Social or economic factors that impact crop conditions (i.e. policy changes, agricultural subsidies, government intervention, etc.)

Conflict: Armed conflict or civil unrest that is preventing the planting, working, or harvesting of the fields by the farmers.

	Exceptional
	Favourable
	Watch
	Poor
	Failure
	Out-of-Season
	No Data

	
Wet	Dry
	
Hot	Cold
	
Extreme Event	Delayed Onset
	
Socio-economic	Pests & Disease
	
Conflict	

Crop Season Nomenclature:

In countries that contain multiple cropping seasons for the same crop, the following charts identifies the national season name associated with each crop season within the Crop Monitor for Early Warning.

MENA				
Country	Crop	Season 1 Name	Season 2 Name	Season 3 Name
Egypt	Rice	Summer-planted	Nili season (Nile Flood)	

East Africa				
Country	Crop	Season 1 Name	Season 2 Name	Season 3 Name
Burundi	Maize	Season B	Season A	
Ethiopia	Maize	Meher Season (long rains)	Belg Season (short rains)	
Kenya	Maize	Long Rains	Short Rains	
Somalia	Maize	Gu Season	Deyr Season	
Somalia	Sorghum	Gu Season	Deyr Season	
Uganda	Maize	First Season	Second Season	
United Republic of Tanzania	Maize	Long Rains	Short Rains	
United Republic of Tanzania	Sorghum	Long Rains	Short Rains	

West Africa				
Country	Crop	Season 1 Name	Season 2 Name	Season 3 Name
Benin	Maize	Main season	Second season	
Cameroon	Maize	Main season	Second season	
Cote d'Ivoire	Maize	Main season	Second season	
Ghana	Maize	Main season	Second season	
Mauritania	Rice	Main season	Off-season	
Nigeria	Maize	Main season	Short-season	
Nigeria	Rice	Main season	Off-season	
Togo	Maize	Main season	Second season	

Southern Africa				
Country	Crop	Season 1 Name	Season 2 Name	Season 3 Name
Democratic Republic of the Congo	Maize	Main season	Second season	
Mozambique	Maize	Main season	Second season	

Southeast Asia				
Country	Crop	Season 1 Name	Season 2 Name	Season 3 Name
Bangladesh	Rice	Boro	Aman	
Cambodia	Rice	Wet season	Dry season	
Indonesia	Rice	Main season	Second season	
Lao People's Democratic Republic	Rice	Wet season	Dry season	
Myanmar	Rice	Wet season	Dry season	
Philippines	Rice	Wet season	Dry season	
Sri Lanka	Rice	Maha	Yala	
Thailand	Rice	Wet season	Dry season	
Viet Nam	Rice	Wet season (Autumn)	Dry season (Winter/Spring)	

Central & South Asia				
Country	Crop	Season 1 Name	Season 2 Name	Season 3 Name
Afghanistan	Wheat	Winter-planted	Spring-planted	
Kazakhstan	Wheat	Winter-planted	Spring-planted	
Kyrgyzstan	Wheat	Winter-planted	Spring-planted	
Tajikistan	Wheat	Winter-planted	Spring-planted	

Crop Season Nomenclature:

In countries that contain multiple cropping seasons for the same crop, the following charts identifies the national season name associated with each crop season within the Crop Monitor for Early Warning.

Central America & Caribbean				
Country	Crop	Season 1 Name	Season 2 Name	Season 3 Name
Cuba	Rice	Main season	Second season	
El Salvador	Beans	Primera	Postrera	
El Salvador	Maize	Primera	Segunda	
Guatemala	Beans	Primera	Postrera	Apante
Guatemala	Maize	Primera	Segunda	
Haiti	Maize	Main season	Second season	
Honduras	Beans	Primera	Postrera	
Honduras	Maize	Primera	Segunda	
Nicaragua	Beans	Primera	Postrera	Apante



GEOGLAM

Global Agricultural Monitoring

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Contributing partners



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